

JVC

SERVICE MANUAL

COLOR TELEVISION

AV-32WF47_{/R},
AV-32WF47_{/Y},
AV-32WF47_{/Z}



BASIC CHASSIS

GJ6

I'Art™



BBE

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SPECIFICATION

Items		Contents
Dimensions (W × H × D)		87.7 cm × 69.9 cm × 56.5 cm (34-5/8" × 27-5/8" × 22-1/4")
Mass		64.0 kg (140.8 lbs)
TV RF System (Analog / Digital)	Analog Digital	CCIR (M) ATSC terrestrial / Digital cable
Color System (Analog)		NTSC
Stereo System (Analog)		BTSC (Multi Channel Sound)
Teletext System (Analog)		Closed caption (T1-T4 / CC1-CC4)
TV Receiving Channels and Frequency (Analog)	VHF Low VHF High UHF CATV	02ch - 06ch : 54MHz - 88MHz 07ch - 13ch : 174MHz - 216MHz 14ch - 69ch : 470MHz - 806MHz 54MHz - 804MHz Low Band : 02 - 06 High Band : 07 - 13 Mid Band : 14 - 22 Super Band : 23 - 36 Hyper Band : 37 - 64 Ultra Band : 65 - 94, 100 - 135 Sub Mid Band : 01, 96 - 99
TV / CATV Total Channel		191 Channels
Intermediate Frequency (Analog)	Video IF Sound IF	45.75 MHz 41.25 MHz (4.5MHz)
Color Sub Carrier Frequency (Analog)		3.58 MHz
Power Input		AC120 V, 60 Hz
Power Consumption		160 W
Picture Tube (Visible size)		82.2 cm (32") Measured diagonally (H: 65.6 cm × V : 49.6 cm)
High Voltage		31.4 kV ±1.3 kV [at Zero beam current]
Speaker		5 cm × 12 cm (2" × 4-3/4"), Oval type × 2
Audio Power Output		5 W + 5 W
Antenna Terminal (VHF / UHF)		F-type connector, 75 Ω unbalanced
Video / Audio input [Input-1/2/3]	Component Video [Input-1/2] S-video [Input-1] Video Audio	RCA pin jack × 6 Y : 1V(p-p), 75 Ω, negative sync Pb/Pr : 0.7 V(p-p), 75 Ω Mini DIN 4-pin connector × 1 Y : 1 V(p-p), 75 Ω, negative sync C : 0.286 V(p-p)(burst signal), 75 Ω 1 V(p-p), 75 Ω, negative sync, RCA pin jack × 2 500 mV(rms)(-4dBs), high impedance, RCA pin jack × 6
Audio Output (Fix)		500 mV(rms)(-4dBs), low Impedance, (400 Hz when modulated 100 %), RCA pin jack × 2
Digital Audio Optical Output		Digital SPDIF × 1
Remote Control Unit		RM-C1290G (AA/R6/UM-3 battery × 2)

Design & specifications are subject to change without notice.

SECTION 1 PRECAUTION

1.1 SAFETY PRECAUTIONS

- (1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- (4) **Use isolation transformer when hot chassis.**
The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.
- (5) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (\perp) side GND, the ISOLATED (NEUTRAL) : (\equiv) side GND and EARTH : (\oplus) side GND. Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.
- (6) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).
- (7) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- (8) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10k Ω 2W resistor to the anode button.
- (9) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(10) Isolation Check (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

b) Leakage Current Check

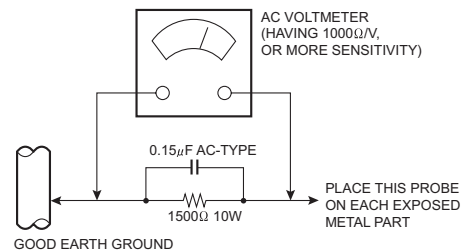
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method

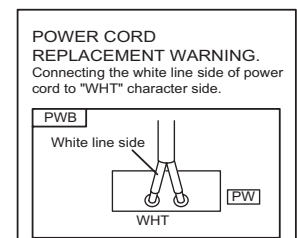
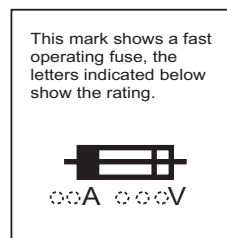
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 Ω per volt or more sensitivity in the following manner. Connect a 1500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



(11) High voltage hold down circuit check.

After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly. See item "How to check the high voltage hold down circuit".



SECTION 2

SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

Built in ATSC (Advanced Television Systems Committee) TUNER

This TV can receive Digital broadcasting (ATSC), Digital cable and Analogue broadcasting.

SMART SOUND

Decreases high sound levels, giving a regulated sound level.

FLAT SQUARE CRT

It became legible from any position by CRT with few reflection and reflect lumps on the flat screen.

DIGITAL COMB FILTER

By the 3D digital comb filter, the refreshed image can be seen.

VIDEO STATUS

Expression of a favorite screen can be chosen by the VIDEO STATUS function.

COMPONENT INPUT

Since the component signal input terminal is equipped, it reappears direct without deteriorating the signal from DVD.

V-CHIP

Since the V-CHIP is built in, it can choose, view and listen to a healthy program.

MTS STEREO

The voice multiplex function of the MTS system is built in. (MTS = Multi channel Television Sound system)

RETURN PLUS

You program a specific channel to return to while scanning through the channels using the CH+ and CH - keys.

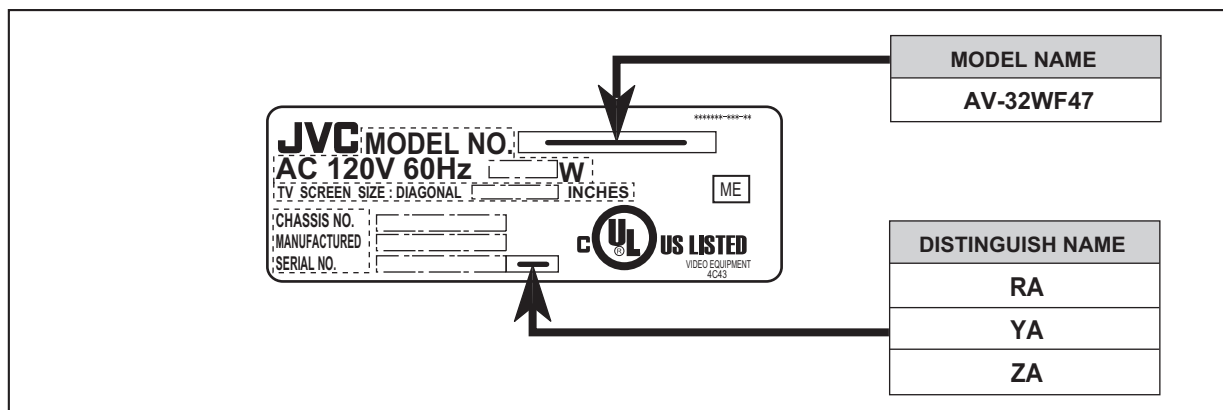
BBE

High definition audio adds natural, clear and extraordinary sound quality to any program.

2.2 MAIN DIFFERENCE LIST

Item	AV-32WF47/R	AV-32WF47/Y	AV-32WF47/Z
PICTURE TUBE (ITC)	A80ALB20X09	A80AKS90X03	A80ERF182X17L
MAIN PWB	SGJ-1314A-M2	SGJ-1303A-M2	SGJ-1304A-M2
CRT SOCKET PWB	SGJ-3305A-M2	SGJ-3301A-M2	SGJ-3303A-M2

2.3 HOW TO IDENTIFY MODELS



2.4 TECHNICAL INFORMATION

2.4.1 MAIN MI-COM (CPU) PIN FUNCTION

Pin No.	Pin name	I/O	Function	Pin No.	Pin name	I/O	Function
1	M_MUTE	O	Fixed output muting [Muting : H]	29	YC_GND	-	GND
2	KEY1	I	Front key scan voltage (CH+ / VOL+ / VOL-)	30	V1_IN	I	Not used
3	KEY2	I	Front key scan voltage (CH- / MENU/POWER)	31	ABCL	I	Current for automatic beam (brightness)/contrast limit
4	uP_DVss	-	GND	32	MONITOR_OUT	O	Not used
5	Reset	I	CPU reset [Reset: L]	33	BLACK_DET	-	Black level detection filter
6	8MHz_OUT	O	CPU system clock: 8MHz oscillation	34	SVM_OUT	O	Y signal for scan velocity scan modulation
7	8MHz_IN	I	CPU system clock: 8MHz oscillation	35	APL_FIL	-	Average picture level filter
8	TEST	-	GND	36	APC_FIL	-	Automatic phase control filter
9	uP_DVDD	I	5V	37	fsc_OUT	O	Not used
10	TU_RESET	O	Reset for digital tuner module [Reset : H]	38	YC_Vcc	I	5V (for video process circuit)
11	uP_VVSS	-	GND	39	R_OUT	O	R signal for CRT output
12	TV_HGND	-	GND	40	G_OUT	O	G signal for CRT output
13	FBP_SCP	I	Flyback pulse (H. pulse)	41	B_OUT	O	B signal for CRT output
14	HOUT	O	H. drive (oscillation)	42	RGB_Vcc	I	9V (for RGB process circuit)
15	H_Vcc	I	9V (for H. oscillation start)	43	IK_IN	I	Not used
16	HAFC_1	-	H. AFC filter	44	TV_DGND	-	GND
17	Vsaw	-	V. saw filter	45	uP_AGND	-	GND
18	VOUT	O	V. drive	46	uP_AVdd	-	5V
19	EW_OUT	O	Parabola waveform (for sidepin correction)	47	MAIN_POWER	O	Power on/off switching control [Power on: L]
20	X-RAY	I	Not used: X-ray detection (for protection) [Detection : H]	48	DTVM_REQ	I	Read request from DTV micom [Request : H]
21	Ys	I	Not used	49	SDA1	I/O	Data for Inter IC control bus (for DTV micom)
22	Cb_IN	I	Cb (external) signal	50	SCL1	O	Clock for Inter IC control bus (for DTV micom)
23	Y_IN	I	Y (external) signal	51	SDA0	I/O	Data for Inter IC control bus (for main memory)
24	Cr_IN	I	Cr (external) signal	52	A_MUTING	O	Audio output muting [Muting : H]
25	TV_DVcc	I	3.3V	53	SCL0	O	Clock for Inter IC control bus (for main memory)
26	V3IN/CIN	I	Not used	54	AC_IN	I	AC 50/60Hz input for timer clock
27	EHT_IN	I	HV change control	55	REMOCON	I	Remote control sensor input [No input : H]
28	V2_IN/Y_IN	I	Not used	56	LED	O	POWER / ON TIMER LED Indication [lighting : L]

SECTION 3 DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

CAUTION AT DISASSEMBLY:

- Be sure to perform the SYSTEM SETTING, at the end of the procedure.
- Make sure that the power cord is disconnected from the outlet.
- Pay special attention not to break or damage the parts.
- When removing each board, remove the connectors as required. Taking notes of the connecting points (connector numbers) makes service procedure manageable.
- Make sure that there is no bent or stain on the connectors before inserting, and firmly insert the connectors.

3.1.1 REMOVING THE REAR COVER

- (1) Disconnect the power plug.
- (2) Remove the 12 screws [A].
- (3) Withdraw the REAR COVER backward.

3.1.2 REMOVING THE AV TERMINAL BOARD

- Remove the REAR COVER.
 - (1) Remove the 5 screws [B].
 - (2) Withdraw the AV TERMINAL BOARD toward you.

3.1.3 REMOVING THE CHASSIS

- Remove the REAR COVER.
- Remove the AV TERMINAL BOARD.
 - (1) Slightly raise the both sides of CHASSIS by hand.
 - (2) Remove the 2 claws under the both side of the CHASSIS from the front cabinet.
 - (3) Withdraw the CHASSIS backward.
(If necessary, remove the wire clamp, connectors etc.)

3.1.4 REMOVING THE SPEAKER

- Remove the REAR COVER.
 - (1) Remove the 2 screws [D].
 - (2) Remove the SPEAKER with SPEAKER HOLDER.
 - (3) Remove the 2 screws [E].
 - (4) Remove the SPEAKER from the SPEAKER HOLDER.
 - (5) Follow the same steps when removing the other hand SPEAKER.

NOTE :

When remove the 2 screws [D] of the SPEAKER, remove the lower side screw first, and then remove the upper one.

3.1.5 REMOVING THE LED & POWER SW PWB

- Remove the REAR COVER.
 - Remove the CHASSIS.
 - (1) Remove the 2 screws [F].
 - (2) Withdraw the LED & POWER SW PWB toward you.
- *If necessary, remove the wire clamp, connector etc.

3.1.6 REMOVING THE FRONT CONTROL PWB

- Remove the REAR COVER.
 - Remove the CHASSIS.
 - (1) Remove the 2 screws [G].
 - (2) Withdraw the FRONT CONTROL PWB toward you.
- *If necessary, remove the wire clamp, connector etc.

3.1.7 REMOVING THE USB PWB

- Remove the REAR COVER.
 - Remove the AV TERMINAL BOARD.
 - (1) Remove the 2 screws [H].
 - (2) Withdraw the USB PWB toward you.
- *If necessary, remove the wire clamp, connector etc.

3.1.8 CHECKING THE CHASSIS

To check the PW Board from back side.

- (1) Pull out the CHASSIS (refer to REMOVING THE CHASSIS).
- (2) Erect the CHASSIS vertically with the HVT side facing up so that you can easily check the back side of the PW board.

CAUTION :

- When erecting the CHASSIS, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- **When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PWB.**

3.1.9 WIRE CLAMPING AND CABLE TYING

- (1) Be sure to clamp the wire.
- (2) Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

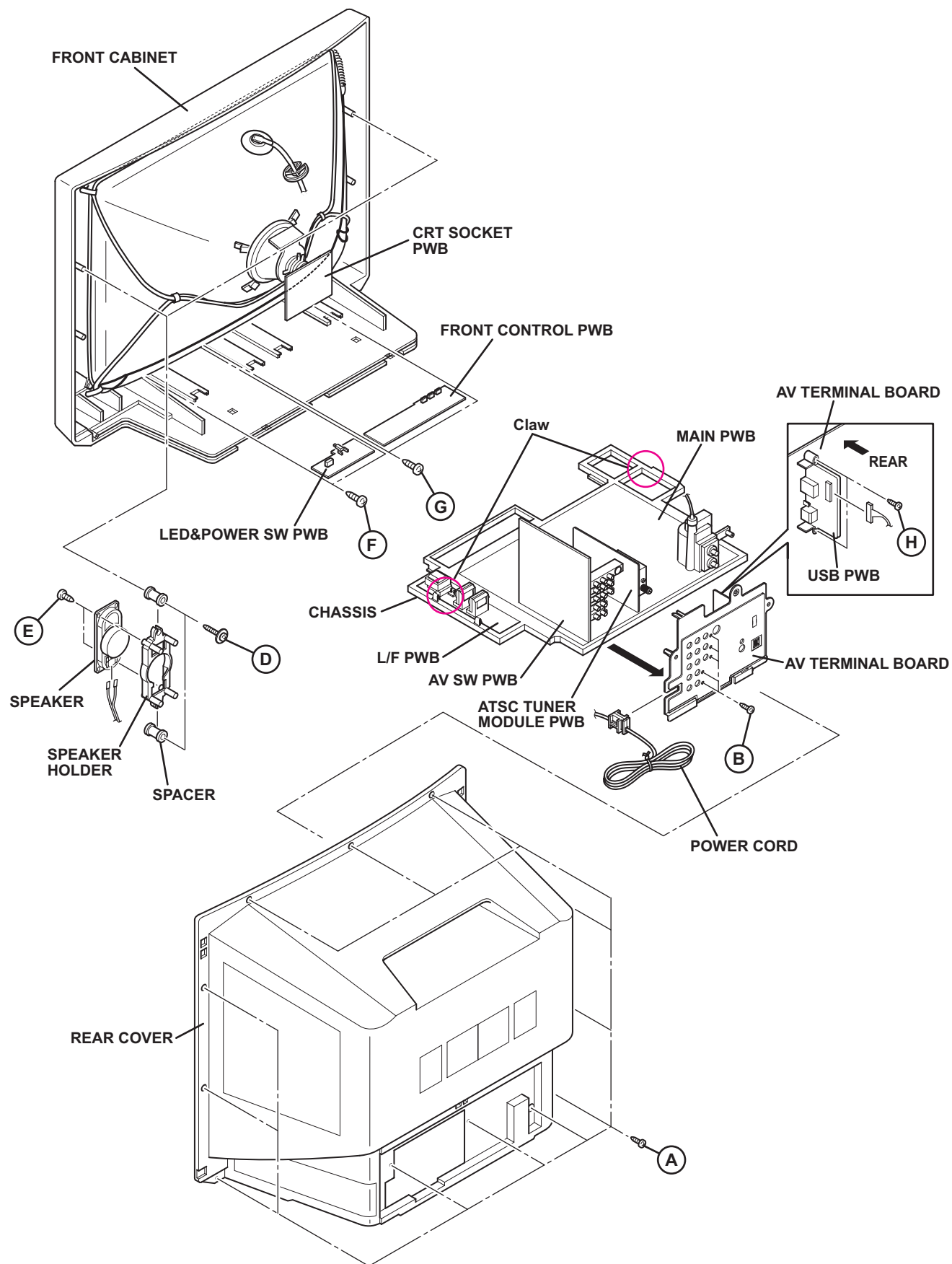


Fig.1

3.1.10 REMOVING THE CRT

NOTE:

- Replacement of the CRT should be performed by 2 or more persons.
 - After removing the REAR COVER, CHASSIS etc.,
- (1) Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig. 2).
 - (2) While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig. 2.
 - (3) Remove 4 screws marked by arrows with a box type screw-driver as shown in Fig. 3.

NOTE:

Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.

- (4) After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig. 4.

NOTE:

- The CRT should be assembled according to the opposite sequence of its dismantling steps.
- The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

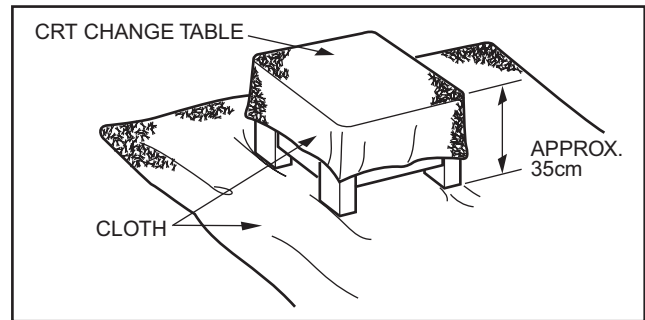


Fig.2

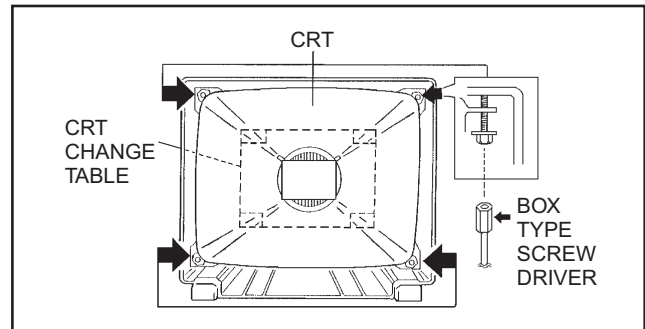


Fig.3

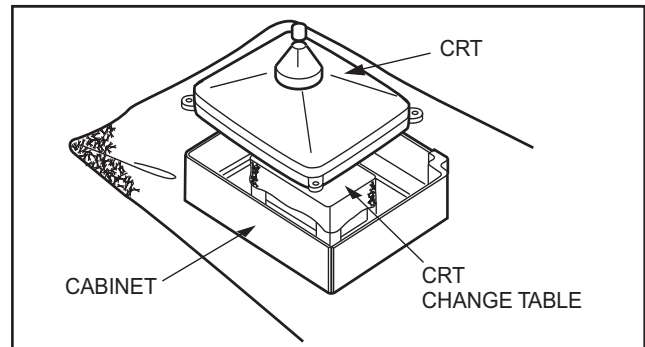


Fig.4

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.5. Wipe around the anode button with clean and dry cloth. (Fig.5) Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not sticks to the anode button. (Fig.6)

Silicon grease product No. KS - 650N

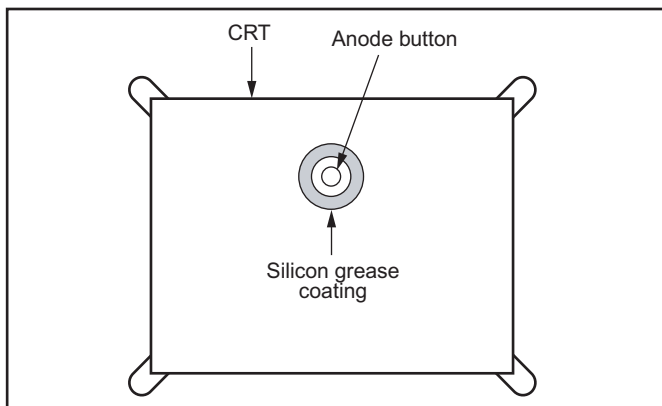


Fig.5

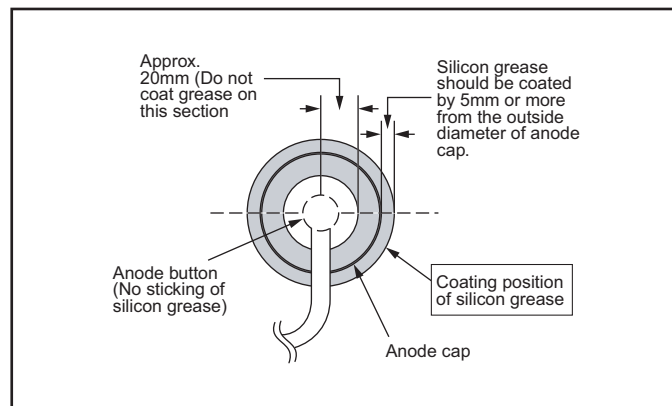


Fig.6

3.2 MEMORY IC REPLACEMENT

- This model uses the memory IC.
- This memory IC stores data for proper operation of the video and drive circuits.
- When replacing, be sure to use an IC containing this (initial value) data.

3.2.1 MEMORY IC TABLE

Symbol	Number of pins	Mounting PWB	Main content of data
IC702	8-pin	MAIN PWB	Setting value of Initial setting data is memorized.

3.2.2 MEMORY IC REPLACEMENT PROCEDURE

1. Power off

Switch off the power and disconnect the power plug.

2. Replace the memory IC

Be sure to use a memory IC written with the initial setting data.

3. Power on

Connect the power cord to the wall outlet and switch on the power.

4. Receiving channel setting

Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.

5. User settings

Check the user setting items according to the "FACTORY SETTING ITEM" table.

Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.

6. SERVICE MODE setting

Verify what to set in the SERVICE MODE, and set whatever is necessary(Fig.1) .

Refer to the SERVICE ADJUSTMENT for setting.

3.2.3 SERVICE MODE SETTING ITEMS

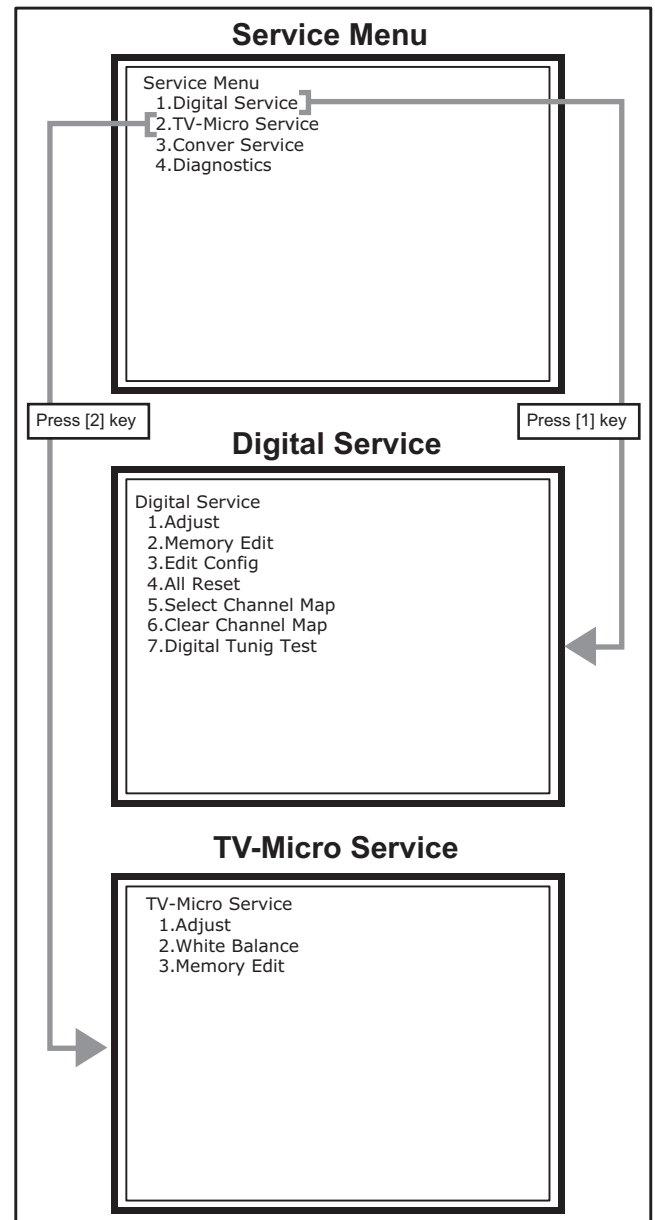


Fig.1

Setting items	Settings	Item No.
1. Digital Service		
Audio system setting	Adjust	A001~A010
2. TV-Micro Service		
Video system setting	Adjust	S001 - S045
Deflection system	Adjust	D001 - D033
Factory system setting	Fixed	F001 - F003

3.2.4 SETTINGS OF FACTORY SHIPMENT

3.2.4.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
CHANNEL	CABLE-02
VOLUME	10

3.2.4.2 REMOTE CONTROL DIRECT OPERATION

Setting item		Setting position
INPUT		TV
CHANNEL		CABLE-02
VOLUME		10
MUTING		OFF
DISPLAY		OFF
SLEEP TIMER		OFF
V. STATUS		DYNAMIC
THEAT. PRO		OFF
C.C.		OFF
MTS		STEREO
ASPECT		4 : 3
SOUND	BBE	ON
	Smart Sound	OFF

3.2.4.3 REMOTE CONTROL MENU OPERATION

(1) INITIAL SETUP

Setting item	Setting position
Noise Muting	On
Language	English
Front Panel Lock	Off
V-Chip	Off
Set Lock Code	0000
Closed Caption	Auto(CC1/T1)
Auto Shut Off	Off

(2) TUNER SETUP

Setting item	Setting position
Auto Tuner Setup	Unnecessary to set

(3) SOUND ADJUST

Setting item	Setting position
Bass	0
Treble	0
Balance	0
Optical Out	PCM
Turn On Volume	Current
Volume Limit	50

(4) CLOCK / TIMERS

Setting item	Setting position
Set Clock	Manual
On / Off Timer	Off

(5) INTERACTIVE PLUG-IN MENU

Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE).

(6) PICTURE ADJUST

Customers can adjust the picture setting of menu screen as their own like but the picture standard value during factory shipment is as below.

Setting item	TINT	COLOR	PICTURE	BRIGHT	DETAIL	COLOR TEMPERATURE	VSM
STANDARD	0	0	0	0	0	LOW	ON
DINAMIC	0	0	+14	0	+10	HIGH	ON
THEATER	-3	-3	-10	+1	0	HIGH	OFF
GAME	0	+7	-10	0	+7	LOW	ON

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

- (1) Avoid heating for more than 3 seconds.
- (2) Do not rub the electrodes and the resist parts of the pattern.
- (3) When removing a chip part, melt the solder adequately.
- (4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

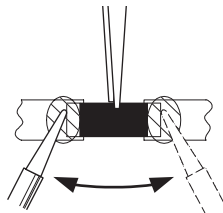
- (1) Use a high insulation soldering iron with a thin pointed end of it.
- (2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

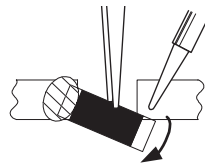
1. How to remove Chip parts

[Resistors, capacitors, etc.]

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with the tweezers and remove the chip part.

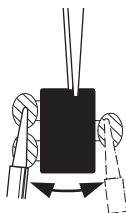


[Transistors, diodes, variable resistors, etc.]

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



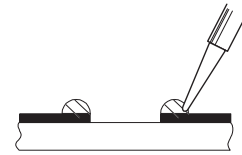
NOTE :

After removing the part, remove remaining solder from the pattern.

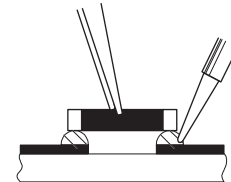
2. How to install Chip parts

[Resistors, capacitors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.

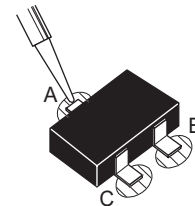


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

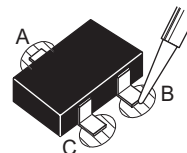


[Transistors, diodes, variable resistors, etc.]

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead **A** as indicated in the figure.



- (4) Then solder leads **B** and **C**.



SECTION 4 ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

- (1) There are 2 ways of adjusting this TV : One is with the **REMOTE CONTROL UNIT** and the other is the conventional method using adjustment parts and components.
- (2) The adjustment using the **REMOTE CONTROL UNIT** is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- (3) Make sure that connection is correctly made AC to AC power source.
- (4) Turn on the power of the TV and measuring instruments for warming up for at least 30 minutes before starting adjustments.
- (5) If the receive or input signal is not specified, use the most appropriate signal for adjustment.
- (6) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

4.2 PRESET SETTING BEFORE ADJUSTMENTS

Unless otherwise specified in the adjustment items, preset the following functions with the **REMOTE CONTROL UNIT**.

Item	Preset value
VIDEO STATUS	STANDARD
PICTURE adjustment	All 00
COLOR TEMPERATURE	LOW
VSM	OFF
SOUND adjustment	All 00
BBE	OFF
Smart Sound	OFF
ASPECT	4 : 3

4.3 MEASURING INSTRUMENT AND FIXTURES

- DC voltmeter (or digital voltmeter)
- DC power supply
- Oscilloscope
- Signal generator (Pattern generator) [NTSC]
- TV audio multiplex signal generator
- Remote control unit

4.4 ADJUSTMENT ITEMS

■CHECK ITEM

- B1 VOLTAGE check
- HV POTENTIAL check
- X-RAY PROTECTOR OPERATION-1 check
- X-RAY PROTECTOR OPERATION-2 check

■FOCUS

- FOCUS adjustment

■DEFLECTION CIRCUIT [2.TV-Micro Service]

- V. SIZE / V. POSITION (4:3) adjustment
- V. SIZE / V. POSITION (16:9) adjustment
- H. POSITION / H. SIZE / SIDE PIN (4:3) adjustment
- H. POSITION / H. SIZE / SIDE PIN (16:9) adjustment

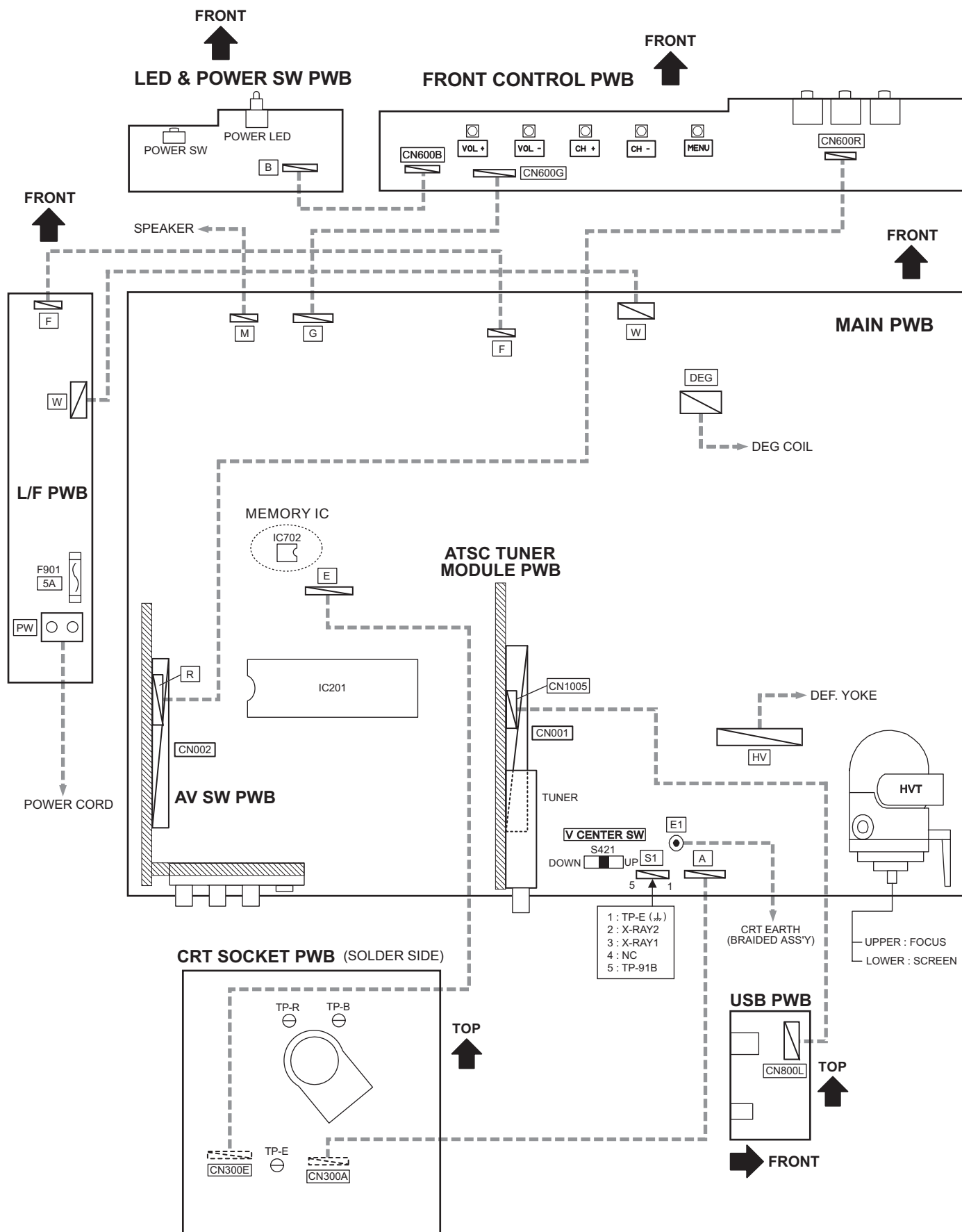
■VIDEO CIRCUIT [2.TV-Micro Service]

- WHITE BALANCE(High Light & Low Light) adjustment
- SUB BRIGHT adjustment
- SUB CONTRAST adjustment
- SUB COLOR adjustment
- SUB TINT adjustment

■MTS CIRCUIT [1.Digital Service]

- MTS INPUT LEVEL adjustment
- MTS SEPARATION adjustment

4.5 ADJUSTMENT LOCATIONS



4.6 SERVICE MODE

4.6.1 BASIC OPERATION OF SERVICE MODE

Operate the SERVICE MODE with the REMOTE CONTROL UNIT.

4.6.1.1 HOW TO ENTER THE SERVICE MODE

- (1) Set to "0 minutes" using the [SLEEP TIMER] key.
- (2) While "0 minutes" is displayed, press the [VIDEO STATUS] key and [DISPLAY] key simultaneously.
- (3) Enter the SERVICE MODE (Fig.1)

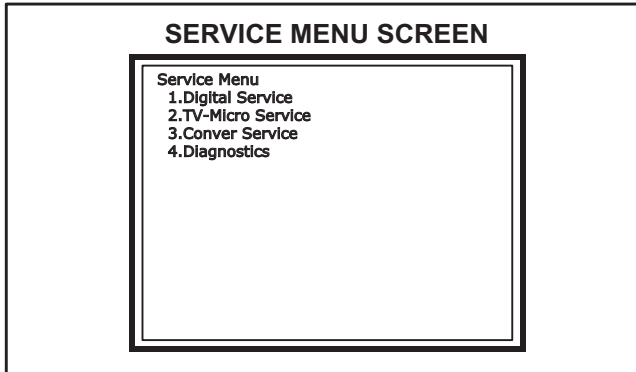


Fig.1

4.6.1.2 HOW TO EXIT THE SERVICE MODE

Press the [MENU] key to exit the SERVICE MODE.

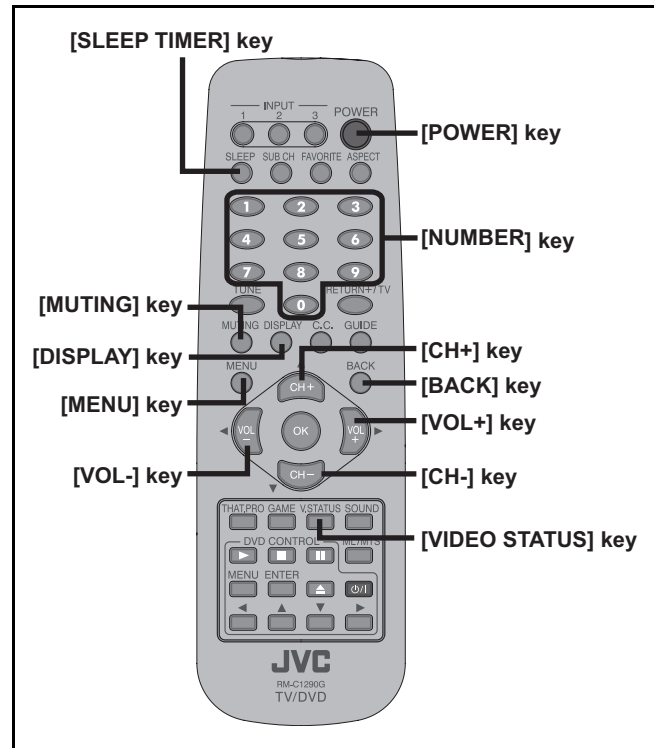
4.6.1.3 HOW TO STORE OF SETTING VALUE

When adjustment is completed, press the [MUTING] key to memorize the adjustment value.

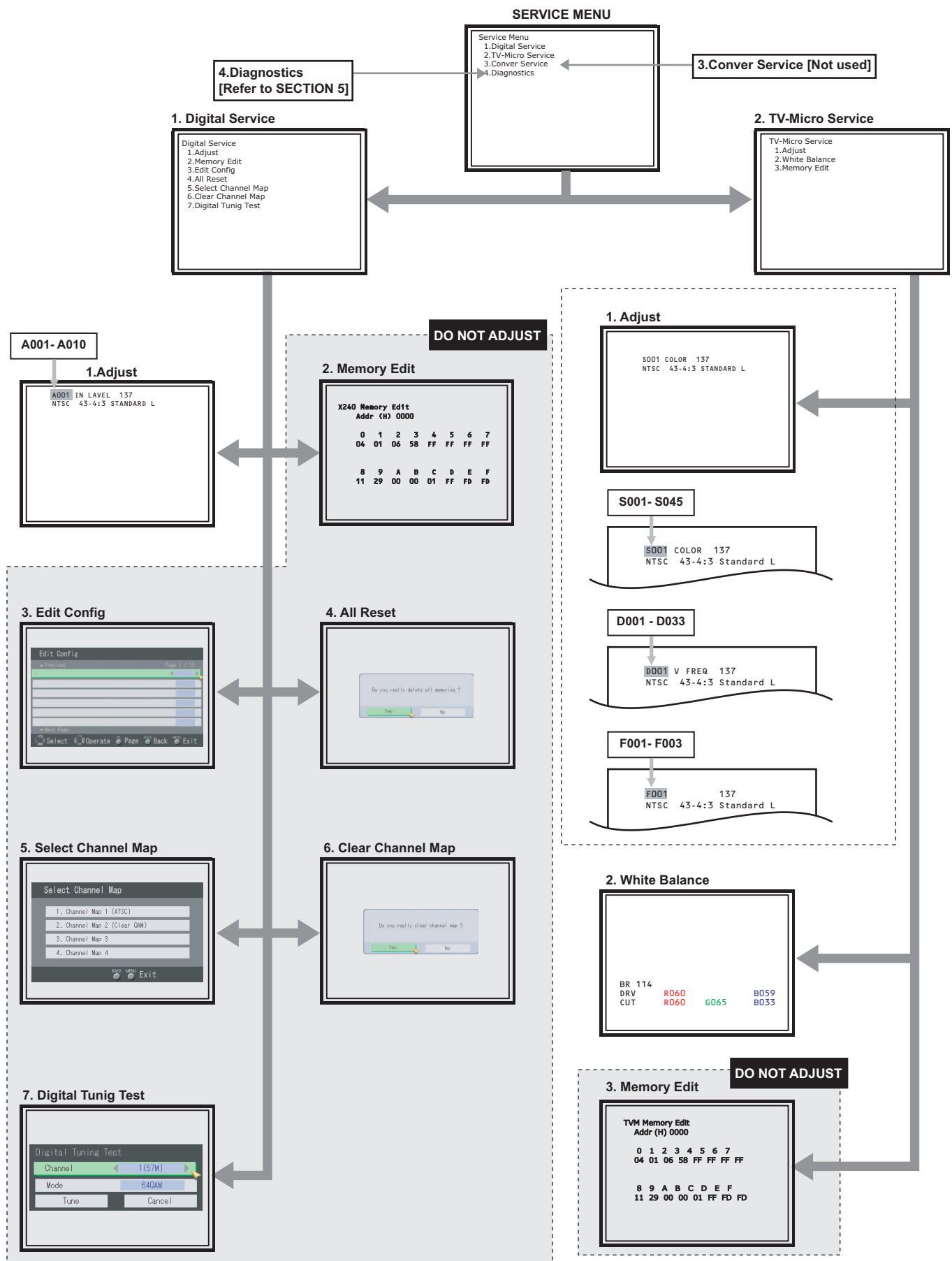
NOTE:

If not to do it, adjustment data is not memorized to the memory IC. And if exit the adjustment mode before memorize the data, the adjustment value which you change is canceled.

4.6.1.4 SERVICE MODE SELECT KEY LOCATION



4.6.2 SERVICE MODE MENU FLOW CHART

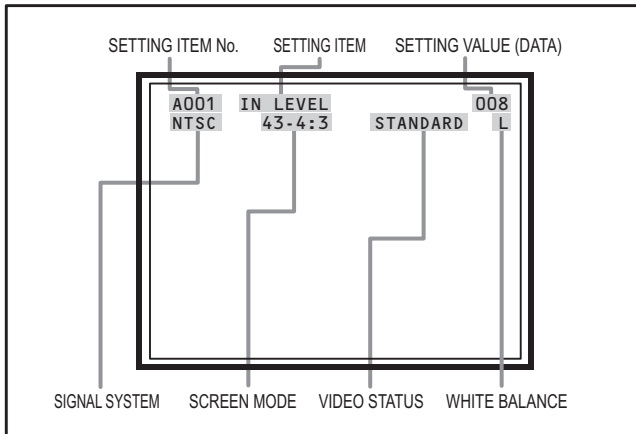


4.6.3 DESCRIPTION OF STATUS DISPLAY

The status display on the upper part of the SERVICE MODE screen is common (to all models).

4.6.3.1 DIGITAL SERVICE MODE

1. Adjust



(1) SIGNAL SYSTEM

The signal displayed on the screen is displayed.

NTSC : 525i (Composite / S-video input)
525I : 525i (Component input)
D525I : ATSC 525i
D525P : ATSC 525p
D750P : ATSC 750p
D1125I : ATSC 1125i

(2) SCREEN MODE

State of the ASPECT is displayed.

43-4:3 : 4 : 3 (Input signal 4 : 3)
43-16:9 : 16 : 9 (Input signal 4 : 3)
16-16:9 : 16 : 9 (Input signal 16 : 9)
16-4:3 : 4 : 3 (Input signal 16 : 9)
16-ZOOM : HD ZOOM (Input signal 16 : 9)

(3) VIDEO STATUS

State of the VIDEO STATUS is displayed.

STANDARD : STANDARD
DYNAMIC : DYNAMIC
THEATER : THEATER
GAME : GAME

(4) WHITE BALANCE

State of the WHITE BALANCE is displayed.

H : HIGH
L : LOW

(5) SETTING ITEM NAME

Setting item name are displayed. For the setting item names to be displayed, refer to "INITIAL SETTING VALUE OF SERVICE MODE".

(6) SETTING ITEM NO.

Setting item numbers are displayed. The setting item numbers to be displayed are listed below.

Item No.	Setting item
A001 - A010	Audio system setting

■SELECTION OF SETTING ITEM

- [CH+] / [CH-] key.

Change the setting items up/ down.

A001... ↔ A010

(7) SETTING VALUE (DATA)

The SETTING VALUE is displayed.

■CHANGE OF SETTING VALUE (DATA)

- [VOL+] / [VOL-] key.

Change the setting values up/down.

■MEMORY OF SETTING VALUE (DATA)

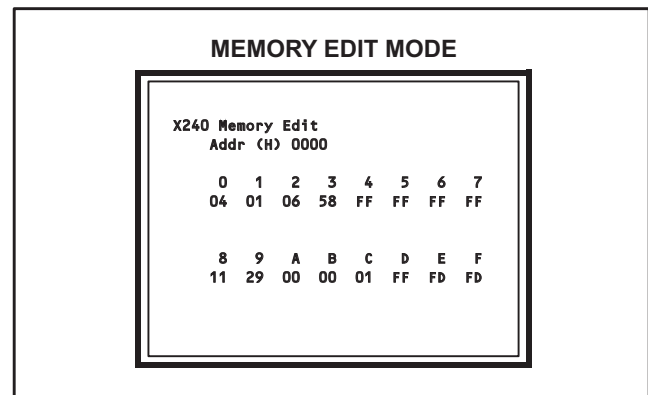
Changed setting value is memorized by pressing [MUTING] key.

2. Memory Edit

Data in the EEPROM is edited on this screen. [Do not adjust]

CAUTION:

This mode is not used in the ADJUSTMENT. Press the [BACK] key to return to the SERVICE MENU SCREEN.

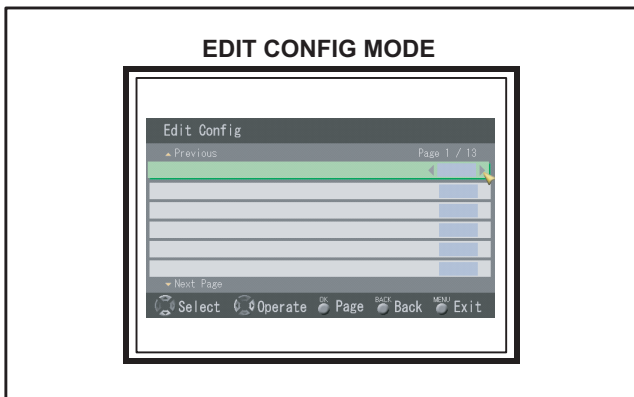


3. Edit Config

Setting value in the digital module is edited and confirmed on this screen. [Do not adjust]

CAUTION:

This mode is not used in the ADJUSTMENT. Press the **[BACK]** key to return to the SERVICE MENU SCREEN.

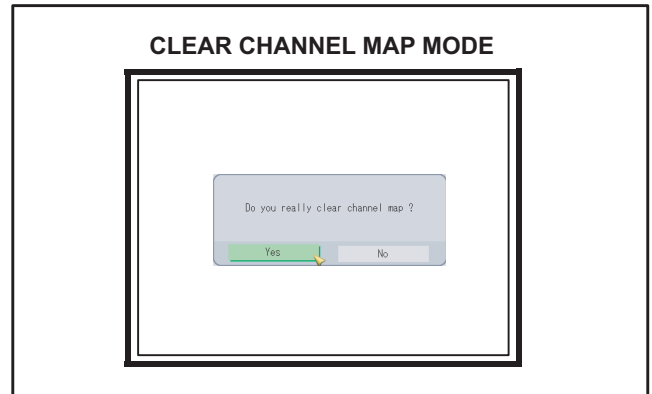


6. Clear Channel Map

Channel map is cleared on this screen. [Do not adjust]

CAUTION:

This mode is not used in the ADJUSTMENT. Press the **[BACK]** key to return to the SERVICE MENU SCREEN.

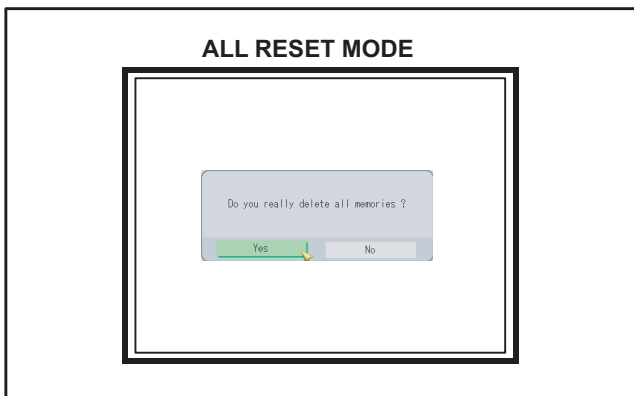


4. All reset

Data in the EEPROM is all reset on this screen. [Do not adjust]

CAUTION:

This mode is not used in the ADJUSTMENT. Press the **[BACK]** key to return to the SERVICE MENU SCREEN.

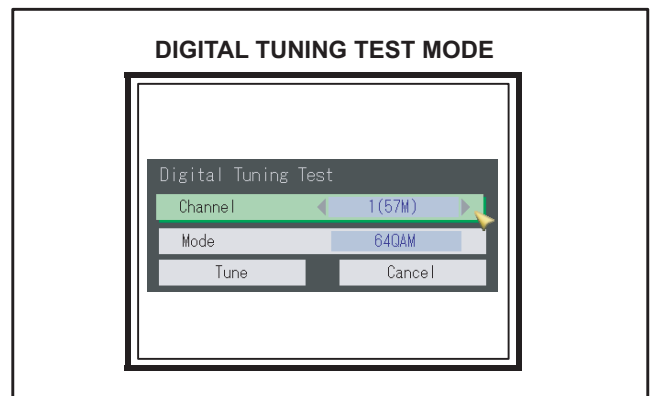


7. Digital Tuning Test

Digital channel tuning is tested on this screen. [Do not adjust]

CAUTION:

This mode is not used in the ADJUSTMENT. Press the **[BACK]** key to return to the SERVICE MENU SCREEN.

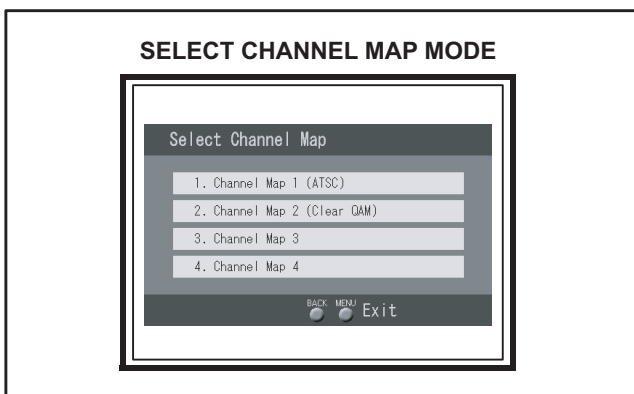


5. Select Channel Map

Channel map is forcibly rewritten on this screen.[Do not adjust]

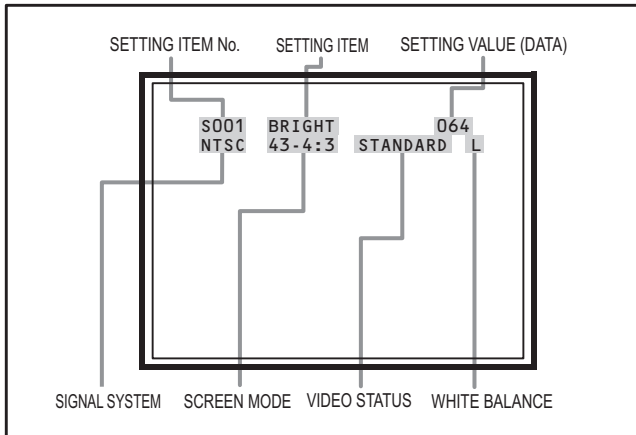
CAUTION:

This mode is not used in the ADJUSTMENT. Press the **[BACK]** key to return to the SERVICE MENU SCREEN.



4.6.3.2 TV-MICRO SERVICE MODE

1. Adjust



(1) SIGNAL SYSTEM

The signal displayed on the screen is displayed.

NTSC : 525i (Composite / S-video input)
525I : 525i (Component input)
D525I : ATSC 525i
D525P : ATSC 525p
D750P : ATSC 750p
D1125I : ATSC 1125i

(2) SCREEN MODE

State of the ASPECT is displayed.

43-4:3 : 4 : 3 (Input signal 4 : 3)
43-16:9 : 16 : 9 (Input signal 4 : 3)
16-16:9 : 16 : 9 (Input signal 16 : 9)
16-4:3 : 4 : 3 (Input signal 16 : 9)
16-ZOOM : HD ZOOM (Input signal 16 : 9)

(3) VIDEO STATUS

State of the VIDEO STATUS is displayed.

STANDARD : STANDARD
DYNAMIC : DYNAMIC
THEATER : THEATER
GAME : GAME

(4) WHITE BALANCE

State of the WHITE BALANCE is displayed.

H : HIGH
L : LOW

(5) SETTING ITEM NAME

Setting item name are displayed. For the setting item names to be displayed, refer to "INITIAL SETTING VALUE OF SERVICE MODE".

(6) SETTING ITEM NO.

Setting item numbers are displayed. The setting item numbers to be displayed are listed below.

Item No.	Setting item
S001 - S045	Video system setting
D001 - D033	Deflection system
F001 - F003	Factory system setting

■SELECTION OF SETTING ITEM

- **[CH+] / [CH-]** key.
Change the setting items up/ down.

S001... ↔ D001... ↔ F001...↔ S001...

- **[SLEEP TIMER]** key.
Switch to the next items.

S001 → D001 → F001 → S001

(7) SETTING VALUE (DATA)

The SETTING VALUE is displayed.

■CHANGE OF SETTING VALUE (DATA)

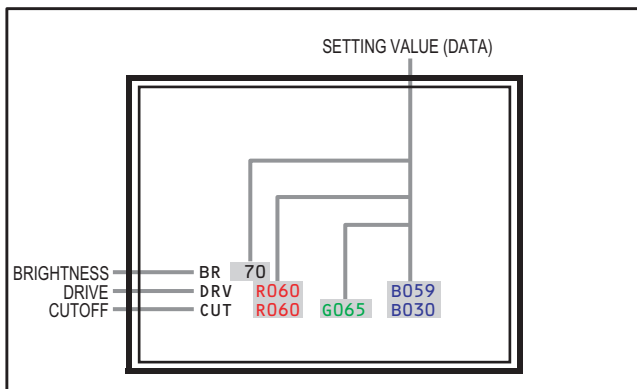
- **[VOL+] / [VOL-]** key.
Change the setting values up/down.

■MEMORY OF SETTING VALUE (DATA)

Changed setting value is memorized by pressing **[MUTING]** key.

2. White Balance

White balance data is adjusted on this screen.



BRIGHTNESS

[VOL+] key : BRIGHT is up
[VOL-] key : BRIGHT is down

DRIVE

[2] key : DRIVE R is up
[5] key : DRIVE R is down
[3] key : DRIVE B is up
[6] key : DRIVE B is down

CUTOFF

[1] key : HORIZONTAL LINE on
[4] key : HORIZONTAL LINE off
[7] key : CUTOFF G is up
[TUNE] key : CUTOFF G is down
[8] key : CUTOFF R is up
[0] key : CUTOFF R is down
[9] key : CUTOFF B is up
[RETURN+] key : CUTOFF B is down

■MEMORY OF SETTING VALUE (DATA)

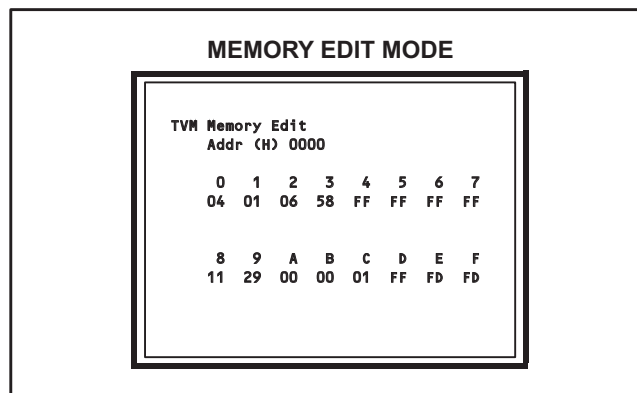
Changed setting value is memorized by pressing [MUTING] key.

3. Memory Edit

Data in the EEPROM is edited on this screen. [Do not adjust]

CAUTION:

This mode is not used in the ADJUSTMENT. Press the [BACK] key to return to the SERVICE MENU SCREEN.



4.7 INITIAL SETTING VALUE OF SERVICE MODE

- (1) Adjustment of the SERVICE MODE is made on the basis of the initial setting values ; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.
- (2) Do not change the initial setting values of the setting items NOT LISTED IN ADJUSTMENT PROCEDURE.
- (3) --- : This mark described in each table shows "Cannot adjust it."

4.7.1 [1. Digital Service]

4.7.1.1 SOUND SETTING

No.	Setting item	Variable range	Initial setting value
A001	IN LEVEL	0 - 15	6
A002	LOW SEP	0 - 63	30
A003	HIGH SEP	0 - 63	30
A004	BASS OFS	-128 - 127	0
A005	TREB OFS	-128 - 127	0

No.	Setting item	Variable range	Initial setting value
A006	AHS MVE	-128 - 127	-4
A007	AHS MSC	-128 - 127	-2
A008	AGC FLAT	0 - 3	1
A009	BBE BASS	-128 - 127	-1
A010	BBE TREB	-128 - 127	1

4.7.2 [2. TV-Micro Service]

4.7.2.1 VIDEO SETTING

No.	Setting item	Variable range	Initial setting value		
			RF		
			STANDARD		THEATER
			4 : 3	16 : 9	4 : 3
S001	BRIGHT	000 - 127	064	---	---
S002	PICTURE	000 - 127	047	---	---
S003	COLOR	000 - 127	050	---	---
S004	TINT	000 - 127	063	---	---
S005	DETAIL	000 - 063	045	---	---
S006	BRIGHT+-	-128 - +127	---	±000	±000
S007	PICT+-	-128 - +127	---	-008	±000
S008	COLOR+-	-128 - +127	---	±000	±000
S009	TINT+-	-128 - +127	---	±000	±000
S010	DETAIL+-	-128 - +127	---	---	±000

No.	Setting item	Variable range	Initial setting value		
			EXTERNAL (S / COMPOSITE)	EXTERNAL (COMPONENT)	ATSC
			STANDARD		
			4 : 3		
S003	COLOR	000 - 127	---	043	---
S004	TINT	000 - 127	---	068	---
S005	DETAIL	000 - 063	045	040	040
S006	BRIGHT+-	-128 - +127	±000	±000	+006
S007	PICT+-	-128 - +127	±000	±000	±000
S008	COLOR+-	-128 - +127	-004	---	-007
S009	TINT+-	-128 - +127	+003	---	+014

No.	Setting item	Variable range	Initial setting value							
			RF / EXTERNAL (S / COMPOSITE)				EXTERNAL (COMPONENT) / ATSC			
			STANDARD		THEATER		STANDARD		THEATER	
			LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
S011	R CUT OFF	000 - 255	030	---	---	---	---	---	---	---

No.	Setting item	Variable range	Initial setting value							
			RF / EXTERNAL (S / COMPOSITE)				EXTERNAL (COMPONENT) / ATSC			
			STANDARD		THEATER		STANDARD		THEATER	
			LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
S012	G CUT OFF	000 - 255	030	---	---	---	---	---	---	---
S013	B CUT OFF	000 - 255	030	---	---	---	---	---	---	---
S014	R DRIVE	000 - 127	064	---	---	---	---	---	---	---
S015	B DRIVE	000 - 127	064	---	---	---	---	---	---	---
S016	R CUT +/-	-128 - +127	---	±000	±000	±000	±000	---	---	---
S017	G CUT +/-	-128 - +127	---	±000	±000	±000	±000	---	---	---
S018	B CUT +/-	-128 - +127	---	±000	±000	±000	±000	---	---	---
S019	R DRV +/-	-128 - +127	---	+005	+013	+007	±000	---	---	---
S020	B DRV +/-	-128 - +127	---	+006	-025	-009	±000	---	---	---
S021	NTSC MAT	000 - 003	003	003	001	001	002	002	001	001
S022	BLACK ST	000 - 003	001	---	001	---	---	---	---	---
S023	DC REST	000 - 001	001	---	001	---	---	---	---	---
S024	DCRSW	000 - 001	001	---	001	---	---	---	---	---

No.	Setting item	Variable range	Initial setting value			
			RF	EXTERNAL (S / COMPOSITE)	EXTERNAL (COMPONENT)	ATSC
S025	ASY SHRP	000 - 007	004	004	004	004
S026	BPF F0	000 - 001	000	000	---	---
S027	KILR OFF	000 - 001	000	000	---	---
S028	KILR SEN	000 - 001	001	001	---	---

No.	Setting item	Variable range	Initial setting value
S029	RGB MUTE	000 - 001	000
S030	BLUE B	000 - 001	000
S031	CMP ABCL	000 - 001	000
S032	OSD ABL	000 - 001	000
S033	OSD CONT	000 - 063	008
S034	SUB CONT	000 - 015	005
S035	ABL GAIN	000 - 003	000
S036	ABL PNT	000 - 003	003
S037	Y GAMMA	000 - 003	001
S038	Y MUTE	000 - 001	000
S039	SVM GAIN	000 - 003	003
S040	SVM PH	000 - 003	003
S041	WPL	000 - 001	000
S042	COL GMM	000 - 001	000
S043	V1 GAIN	000 - 007	004
S044	VMOFF DE	-128 - +127	+003
S045	PIP ADJ	000 - 015	008

4.7.2.2 DEFLECTION SETTING

No.	Setting item	Variable range	Initial setting value		
			RF	EXTERNAL	ATSC
D001	V FREQ	000 - 003	000	003	003
D002	AFC GAIN	000 - 003	000	002	002

No.	Setting item	Variable range	Initial setting value					
			AV-32WF47/R		AV-32WF47/Y		AV-32WF47/Z	
			4 : 3	16 : 9	4 : 3	16 : 9	4 : 3	16 : 9
D003	H POSI	000 - 031	021	---	019	---	019	---
D004	H POSI+-	-128 - +127	---	±000	---	±000	---	±000
D005	V PHASE	000 - 007	000	---	000	---	000	---
D006	V PH+-	-128 - +127	---	±000	---	±000	---	±000
D007	V SIZE	000 - 127	076	---	045	---	058	---
D008	V SIZE+-	-128 - +127	---	-027	---	-023	---	-022
D009	V CENTER	000 - 063	032	---	032	---	032	---
D010	V CENT+-	-128 - +127	---	±000	---	±000	---	±000
D011	V S CORR	000 - 015	009	---	008	---	009	---
D012	V S CO+-	-128 - +127	---	±000	---	±000	---	±000
D013	V LIN	000 - 015	010	---	012	---	010	---
D014	V LIN+-	-128 - +127	---	±000	---	-003	---	±000
D015	H SIZE	000 - 063	050	---	028	---	049	---
D016	H SIZE+-	-128 - +127	---	±000	---	±000	---	±000
D017	WVMT TOP	000 - 003	000	000	000	000	000	000
D018	WVMT BTM	000 - 003	000	000	000	000	000	000
D019	EWCR TOP	000 - 031	013	---	011	---	014	---
D020	EWCR T+-	-128 - +127	---	±000	---	±000	---	±000
D021	EWCR BTM	000 - 031	014	---	016	---	010	---
D022	EWCR B+-	-128 - +127	---	±000	---	±000	---	±000
D023	EW PARA	000 - 063	045	---	035	---	037	---
D024	EW PARA+-	-128 - +127	---	-016	---	-013	---	-012
D025	V EHT	000 - 007	000	---	000	---	000	---
D026	V EHT+-	-128 - +127	---	±000	---	±000	---	±000
D027	H EHT	000 - 007	000	---	000	---	000	---
D028	H EHT+-	-128 - +127	---	±000	---	±000	---	±000
D029	TRAPEZ	000 - 063	031	---	034	---	032	---
D030	TRAPEZ+-	-128 - +127	---	±000	---	±000	---	±000

No.	Setting item	Variable range	Initial setting value
D031	V AGC	000 - 001	000
D032	BLANK SW	000 - 001	000
D033	VRMP BI	000 - 001	000

4.7.2.3 FACTORY SETTING

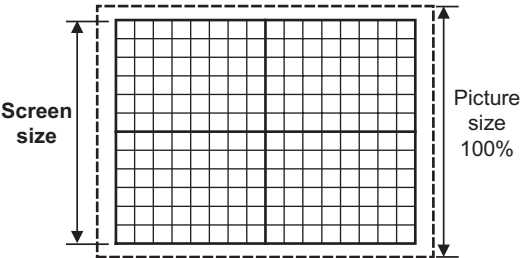

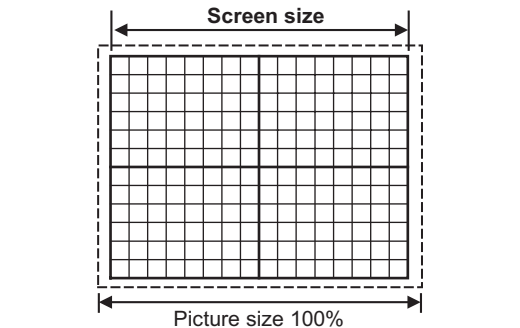
No.	Setting item	Variable range	Initial setting value
F001	(NODISPLAY)	000 - 255	042
F002	(NODISPLAY)	000 - 255	090
F003	(NODISPLAY)	000 - 001	001

4.8.1 CHECK ITEM

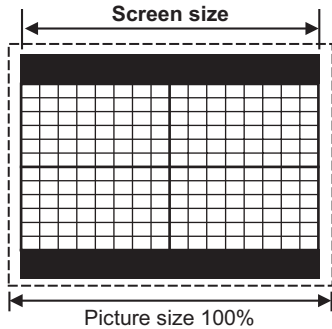
[illegible]

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS	Signal generator		FOCUS VR [In HVT]	(1) Receive the crosshatch signal. (2) While watching at the screen, adjust the FOCUS VR so that the vertical and horizontal lines get the thinnest and sharpest center horizontal line. (3) Make sure that the picture is in focus even when the screen gets darkened.

























4.8.3 DEFLECTION CIRCUIT [2.TV-Micro Service]

Item	Measuring instrument	Test point	Adjustment part	Description				
V. SIZE / V. POSITION (4:3)	Signal generator Remote control unit		[1.Adjust] D05: V PHASE D07: V SIZE D11: VS CORR D13: V LIN	(1) Receive the crosshatch signal. (2) Select the 2.TV-Micro Service from the SERVICE MODE. (3) Select the 1. Adjust . (4) Select < D05 > (V PHASE). (5) Confirm that the value of < D05 > is 0. (6) Adjust V. CENTER SW to agree the vertical center with the display center. (7) Select < D07 > (V SIZE). (8) Adjust < D07 > so that the vertical screen size becomes 92% of the vertical picture size. (9) Press the [MUTING] key to memorize the set value. NOTE: <ul style="list-style-type: none">Bottom is to be located within the 85%-95% range.When vertical linearity is not even, adjust < D13 > (V LIN) and < D11 > (VS CORR) to vertical linearity.				
			V. CENTER SW (S421) [MAIN PWB]					
V. SIZE / V. POSITION (16:9)	Signal generator Remote control unit		[1.Adjust] D08: V SIZE+- D14: V LIN+-	<ul style="list-style-type: none">V. SIZE / V. POSITION (4:3) adjustment should be finished.(1) Receive the black and white signal (color off).(2) Select the ASPECT to 16:9 mode.(3) Select the 2.TV-Micro Service from the SERVICE MODE.(4) Select the 1. Adjust.(5) Confirm that the width of V. BLANKING is equal to adjustment value (B).(6) If the value (B) is not correct, adjust < D08 > (V SIZE+-) and < D14 > (V LIN+-) to be same to adjustment value (B).(7) Press the [MUTING] key to memorize the set value. NOTE : <ul style="list-style-type: none">When you change the VERTICAL adjustment value of the regular mode (4:3), review the adjustment of 16:9 mode again.				
								
<table border="1"><thead><tr><th>Adjust point</th><th>Setting value</th></tr></thead><tbody><tr><td>B</td><td>60 mm</td></tr></tbody></table>			Adjust point	Setting value	B	60 mm		
Adjust point	Setting value							
B	60 mm							
H. SIZE / H. POSITION / SIDE PIN (4:3)	Signal generator Remote control unit		[1.Adjust] D03: H POSI D15: H SIZE D23: EW PARA D19: EWCR TOP D21: EWCR BTM	<ul style="list-style-type: none">FORCUS adjustment should be finished.V. SIZE / V. POSITION adjustment should be finished.(1) Receive the crosshatch signal.(2) Select the 2.TV-Micro Service from the SERVICE MODE.(3) Select the 1. Adjust.(4) Select < D03 > (H POSI).(5) Adjust < D03 > so that the left width and right width of the crosshatch screen become equal.(6) Select < D15 > (H SIZE).(7) Adjust < D15 > so that the horizontal screen size becomes 90% of the horizontal picture size.(8) Select < D23 > (EW PARA).(9) Adjust < D23 > to vertical line at both side to become straight.(10) If it is necessary, readjust step 3 to 9.(11) Press the [MUTING] key to memorize the set value. NOTE: If it is not straight at the vertical upper and bottom corner line, adjust the upper and bottom corner pin by < D19 > (EWCR TOP) and < D21 > (EWCR BTM).				
								

Item	Measuring instrument	Test point	Adjustment part	Description
H. POSITION / H. SIZE / SIDE PIN (16:9)	Signal generator Remote control unit		[1.Adjust] D16: H SIZE+/- D04: H POSI+/- D24: EW PARA+/- D20: EWCR T+/- D22: EWCR B+/-	<ul style="list-style-type: none"> • FORCUS adjustment should be finished. • V. SIZE / V. POSITION adjustment should be finished. • H. SIZE / H. POSITION / SIDE PIN adjustment should be finished. (Regular size(4:3)). <ol style="list-style-type: none"> (1) Receive the crosshatch signal. (2) Select the ASPECT to 16:9 mode. (3) Select the 2.TV-Micro Service from the SERVICE MODE. (4) Select the 1. Adjust. (5) Confirm both sides of crosshatch to be the adjustment value 90%. (6) If the value is not correct, adjust < D16 > (H SIZE+/-) and < D04 > (H POSI+/-) so that the horizontal screen size becomes 90% of the horizontal picture size. (7) Confirm the second vertical line from left and right to be straight. (8) If it is not straight, adjust to be straight by < D24 > (EW PARA+/-), < D20 > (EWCR T+/-) and < D22 > (EWCR B+/-). (9) Press the [MUTING] key to memorize the set value. <p>NOTE :</p> <ul style="list-style-type: none"> • Review the adjustment of 16:9 mode again when you change the SIDE PIN adjustment value of regular (4:3) mode.

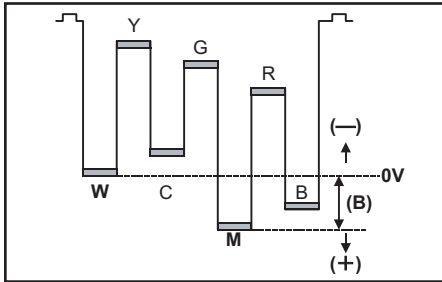


4.8.4 VIDEO CIRCUIT [2.TV-Micro Service]

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (LOW LIGHT)	Signal generator		[1.Adjust] S01: BRIGHT S11: R CUTOFF S12: G CUTOFF S13: B CUTOFF	(1) Receive the black and white signal (color off). (2) Set VIDEO STATUS to " STANDARD ". (3) Select COLOR TEMPERATURE to " LOW ". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust . (6) Set the initial setting value of < S11 > (R CUTOFF), < S12 > (G CUTOFF), < S13 > (B CUTOFF) and < S01 > (BRIGHT). (7) Return to the 2.TV-Micro Service MENU . (8) Select the 2. White Balance . (9) Display a single horizontal line by pressing the [1] key. (10) Turn the SCREEN VR all the way to the left. (11) Turn the SCREEN VR gradually to the right from the left until either one of the red, blue or green colors appears faintly. (12) Adjust the two colors which did not appear until the single horizontal line becomes white by using the [7] to [0] keys, [TUNE] and [RETURN+] . (13) Turn the SCREEN VR until the single horizontal line is displayed faintly. (14) Press the [MUTING] key to memorize the set value. (15) Press the [4] key to cancel the single horizontal line mode. (16) Adjust the BRIGHT level so that the black component shines white slightly by the [VOL+] / [VOL-] key. (17) Confirm that whether the color ingredient of R, G, or B is visible to the black component, which shines white slightly. (18) When the color ingredient can be seen, two colors other than a visible color are adjusted, and it is made to look white. (19) Press the [MUTING] key to memorize the set value.
	Remote control unit	<div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p style="text-align: center;">REMOTE CONTROL UNIT</p> <div style="display: flex; justify-content: space-around;"> <div>H.LINE ON </div> <div></div> <div></div> </div> <div style="display: flex; justify-content: space-around;"> <div>H.LINE OFF </div> <div></div> <div></div> </div> <div style="display: flex; justify-content: space-around;"> <div>G CUTOFF▲ </div> <div>R CUTOFF▲ </div> <div>B CUTOFF▲ </div> </div> <div style="display: flex; justify-content: space-around;"> <div>G CUTOFF▼ </div> <div>R CUTOFF▼ </div> <div>B CUTOFF▼ </div> </div> </div>	[2.White Balance] SCREEN VR [in HVT]	
WHITE BALANCE (HIGH LIGHT)	Signal generator		[1.Adjust] S14: R DRIVE S15: B DRIVE	• WHITE BALANCE(LOW LIGHT) adjustment should be finished. (1) Receive the black and white signal (color off). (2) Set VIDEO STATUS to " STANDARD ". (3) Select COLOR TEMPERATURE to " LOW ". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust . (6) Set the initial setting value of < S14 > (R DRIVE) and < S15 > (B DRIVE). (7) Return to the 2.TV-Micro Service MENU . (8) Select the 2. White Balance . (9) Adjust the screen until it becomes white by using the [2] , [3] , [5] and [6] keys. (10) Press the [MUTING] key to memorize the set value.
	Remote control unit	<div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p style="text-align: center;">REMOTE CONTROL UNIT</p> <div style="display: flex; justify-content: space-around;"> <div></div> <div>R DRIVE ▲ </div> <div>B DRIVE ▲ </div> </div> <div style="display: flex; justify-content: space-around;"> <div></div> <div>R DRIVE ▼ </div> <div>B DRIVE ▼ </div> </div> <div style="display: flex; justify-content: space-around;"> <div></div> <div></div> <div></div> </div> <div style="display: flex; justify-content: space-around;"> <div></div> <div></div> <div></div> </div> </div>	[2.White Balance]	

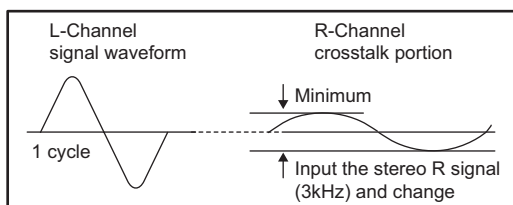
Item	Measuring instrument	Test point	Adjustment part	Description
SUB BRIGHT	Remote control unit		[1.Adjust] S01: BRIGHT	<ul style="list-style-type: none"> WHITE BALANCE adjustment should be finished. (1) Receive any broadcast. (2) Set VIDEO STATUS to "STANDARD". (3) Select COLOR TEMPERATURE to "LOW". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust. (6) Select < S01 > (BRIGHT). (7) Set the initial setting value of < S01 >. (8) If the brightness is not the best with the initial setting value, make fine adjustment of < S01 > until you get the optimum brightness. (9) Press the [MUTING] key to memorize the set value.
SUB CONTRAST	Remote control unit		[1.Adjust] S02: PICTURE	<ul style="list-style-type: none"> SUB BRIGHT adjustment should be finished. (1) Receive any broadcast. (2) Set VIDEO STATUS to "STANDARD". (3) Select COLOR TEMPERATURE to "LOW". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust. (6) Select < S02 > (PICTURE). (7) Set the initial setting value of < S02 >. (8) If the contrast is not the best with the initial setting value, make fine adjustment of the < S02 > until you get the optimum contrast. (9) Press the [MUTING] key to memorize the set value.
SUB COLOR	Remote control unit		[1.Adjust] S03 : COLOR	<p>[Method of adjustment without measuring instrument]</p> <ul style="list-style-type: none"> SUB CONTRAST adjustment should be finished. (1) Receive any broadcast. (2) Set VIDEO STATUS to "STANDARD". (3) Select COLOR TEMPERATURE to "LOW". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust. (6) Select < S03 >(COLOR). (7) Set the initial setting value of the < S03 >. (8) If the color is not the best with the initial setting values, make fine adjustment until you get the best color. (9) Press the [MUTING] key to memorize the set value.
	Signal generator Oscilloscope Remote control unit	TP-B TP-E [CRT SOCKET PWB]	[1.Adjust] S03 : COLOR	<p>[Method of adjustment using measuring instrument]</p> <ul style="list-style-type: none"> SUB CONTRAST adjustment should be finished. (1) Input the full color bar signal includes the 75% white. (2) Set VIDEO STATUS to "STANDARD". (3) Select COLOR TEMPERATURE to "LOW". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust. (6) Select < S03 >(COLOR). (7) Set the initial setting value of the < S03 >. (8) Connect the oscilloscope between TP-B and TP-E. (9) Adjust < S03 > and bring the voltage of (A) in the illustration to +17V. (voltage difference between white and blue). (10) Press the [MUTING] key to memorize the set value.

Item	Measuring instrument	Test point	Adjustment part	Description
SUB TINT	Remote control unit		[1.Adjust] S04 : TINT	[Method of adjustment without measuring instrument] <ul style="list-style-type: none"> SUB CONTRAST adjustment should be finished. (1) Receive any broadcast. (2) Set VIDEO STATUS to "STANDARD". (3) Select COLOR TEMPERATURE to "LOW". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust. (6) Select < S04 >(TINT). (7) Set the initial setting value of the < S04 >. (8) If the tint is not the best with the initial setting values, make fine adjustment until you get the best tint. (9) Press the [MUTING] key to memorize the set value.
	Signal generator Oscilloscope Remote control unit	TP-B TP-E [CRT SOCKET PWB]	[1.Adjust] S04 : TINT	[Method of adjustment using measuring instrument] <ul style="list-style-type: none"> SUB CONTRAST adjustment should be finished. (1) Input the full color bar signal includes the 75% white. (2) Set VIDEO STATUS to "STANDARD". (3) Select COLOR TEMPERATURE to "LOW". (4) Select the 2.TV-Micro Service from the SERVICE MODE. (5) Select the 1. Adjust. (6) Select < S04 >(TINT). (7) Set the initial setting value of the < S04 >. (8) Connect the oscilloscope between TP-B and TP-E. (9) Adjust < S04 > and bring the voltage of (B) in the illustration to +17V. (voltage difference between white and magenta). (10) Press the [MUTING] key to memorize the set value.



4.8.5 MTS CIRCUIT [1.Digital Service]

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL	Remote control unit		[1.Adjust] A01: IN LEVEL	(1) Receive any broadcast. (2) Select the 1.Digital Service from the SERVICE MODE. (3) Select the 1.Adjust . (4) Select the < A01 > (IN LEVEL). (5) Set the initial setting value of < A01 >. (6) Press the [MUTING] key to memorize the set value.
MTS SEPARATION	TV audio multiplex signal generator Oscilloscope Remote control unit	R OUT L OUT [AUDIO OUT]	[1.Adjust] A02: LOW SEP A03: HIGH SEP	(1) Input the stereo L signal (300 Hz) from the TV audio multiplex signal generator to the antenna terminal. (2) Connect an oscilloscope to R OUT pin of the AUDIO OUT, and display one cycle portion of the 300 Hz signal. (3) Select the 1.Digital Service from the SERVICE MODE. (4) Select the 1.Adjust . (5) Select the < A02 > (LOW SEP). (6) Set the initial setting value of < A02 >. (7) Adjust the < A02 > so that the stroke element of the 300Hz signal will become minimum. (8) Press the [MUTING] key to memorize the set value. (9) Input the stereo R signal (3kHz) and change the connection of the oscilloscope to L OUT pin of the AUDIO OUT. (10) Similarly adjust < A03 > (HIGH SEP). (11) Press the [MUTING] key to memorize the set value.



SECTION 5 TROUBLESHOOTING

5.1 SELF CHECK FEATURE

5.1.1 OUTLINE

This unit comes with the "Self check" feature, which checks the operational state of the circuit and displays/saves it during failure. Diagnosis is performed when power is turned on, and information input to the main microcomputer is monitored at all time. Failure detection is based on input state of I²C bus and the various control lines connected to the main microcomputer.

5.1.2 HOW TO ENTER THE SELF CHECK MODE

- (1) Set to "0 minutes" using the [SLEEP TIMER] key.
- (2) While "0 minutes" is displayed, press the [VIDEO STATUS] key and [DISPLAY] key simultaneously, then enter the SERVICE MODE.
- (3) Press the [4] key (4.Diagnostics) in the SERVICE MENU SCREEN.
- (4) Press the [3] key (3.Self check) in the DIAGNOSTICS MODE screen.
- (5) The SELF CHECK MODE screen is displayed.
- (6) Press the [VOL+] / [VOL-] key to switch between the first page and the second page.

NOTE:

When a number key other than the [4] key is pressed in the SERVICE MENU SCREEN, the other relevant screen may be displayed.

This is not used in the SELF CHECK MODE. Press the [BACK] key to return to the SERVICE MENU SCREEN.

5.1.3 HOW TO EXIT THE SELF CHECK MODE

TO SAVE FAILURE HISTORY:

Turn off the power by unplugging the AC power cord plug when in the SELF CHECK MODE.

TO CLEAR (RESET) FAILURE HISTORY:

Turn off the power by pressing the key on the remote control unit when in the SELF CHECK MODE.

5.1.4 FAILURE HISTORY

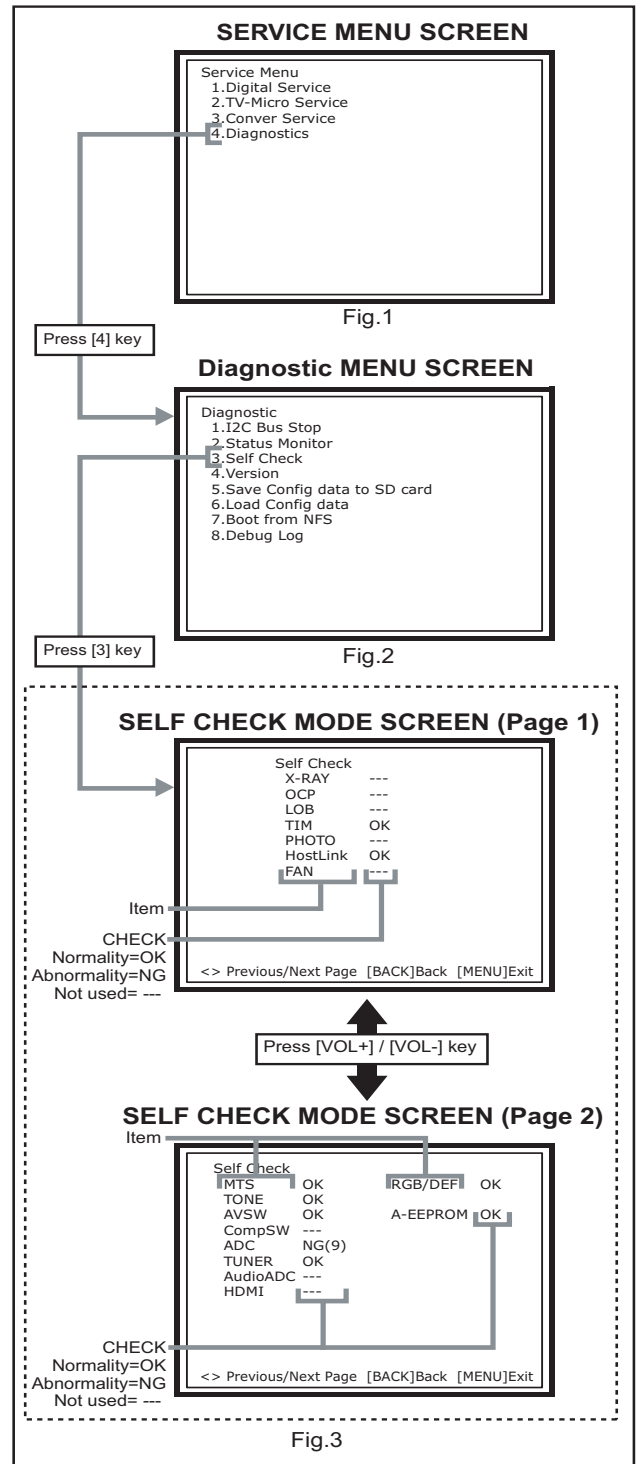
Failure history can be counted up to 9 times for each item. When the number exceeds 9, display will remain as 9. Failure history will be stored in the memory unless it has been deleted.

5.1.5 POINTS TO NOTE WHEN USING THE SELF CHECK FEATURE

In addition to circuit failures (abnormal operation), the following cases may also be diagnosed as "Abnormal" and displayed and counted as "NG".

- (1) Temporary defective transmissions across circuits due to pulse interruptions
- (2) Misalignment in the on/off timing of power for I²C bus (VCC) when turning on/off the main power.

Diagnosis may be impeded if a large number of items are displayed as "NG". As such, start Self check check only after 3 seconds in the case of receivers and 5 seconds in the case of panels upon turning on the power. If recurrences are expected, ensure to clear (reset) the failure history and record the new diagnostic results.



5.1.6 DETAILS

Self check is performed for the following items:

5.1.6.1 PAGE 1 OF SCREEN

Detection item	Display	Detection content	Diagnosis signal (line)	Detection timing
X-ray protection	X-RAY	Not used.	---	---
B1 over-current protection	OCP	Not used.	---	---
Low bias line short protection	LOB	Not used.	---	---
Timer (clock)	TIM	The power frequency is changed as follows: 50Hz → 60Hz / 60Hz→50Hz. IC201 [MAIN PWB]	AC_IN	Detection starts 3 seconds after the power is turned on. Periodically check the power frequency by counting the AC pulse and monitor whether or not the frequency is changed.
Photo detect	PHOTO	Not used.	---	---
DTV and TVM communication	Hostlink	Communication error between the digital TV microcomputer and the TV microcomputer is detected. IC201 [MAIN PWB]	SDA	Check communication errors by counting the number of reset exception handling.
Fan lock	FAN	Not used.	---	---

5.1.6.2 PAGE 2 OF SCREEN

Detection item	Display	Detection content	Diagnosis signal (line)	Detection timing
US audio multiplexing decoder	MTS	Confirmation of reply of ACK signal which uses I2C communication.	SDA	If it checks whenever I2C communication is performed and no reply of ACK signal an error will be counted.
Tone/volume control	TONE	Same as above.	SDA	Same as above.
AV select switch	AVSW	Same as above.	SDA	Same as above.
Component signal select switch	CompSW	Not used.	---	---
A-D converter for component signal	ADC	Confirmation of reply of ACK signal which uses I2C communication.	SDA	If it checks whenever I2C communication is performed and no reply of ACK signal an error will be counted.
Tuner	TUNER	Same as above.	SDA	Same as above.
A-D converter for audio	Audio ADC	Not used.	---	---
Digital input	HDMI	Not used.	---	---
RGB/Def process	RGB/DEF	Confirmation of reply of ACK signal which uses I2C communication. IC201 [MAIN PWB]	SDA	If it checks whenever I2C communication is performed and no reply of ACK signal an error will be counted.
Memory	A-EEPROM	Confirmation of reply of ACK signal which uses I2C communication. IC702 [MAIN PWB]	SDA	Same as above.



Victor Company of Japan, Limited
CRT Display Category 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA388)



Printed in Japan
VPT

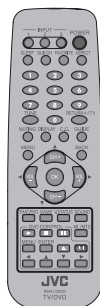
JVC

SCHEMATIC DIAGRAMS

COLOR TELEVISION

**AV-32WF47_{/R}, AV-32WF47_{/Y},
AV-32WF47_{/Z}**

CD-ROM No.SML200605



BASIC CHASSIS

GJ6

I'Art™



AV-32WF47/R, AV-32WF47/Y, AV-32WF47/Z

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the \triangle symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal : Colour bar signal
- (2)Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3)Internal resistance of tester : DC 20k Ω /V
- (4)Oscilloscope sweeping time : H \Rightarrow 20 μ s / div
: V \Rightarrow 5ms / div
: Others \Rightarrow Sweeping time is specified
- (5)Voltage values : All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209 \rightarrow R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

- No unit : [Ω]
- K : [k Ω]
- M : [M Ω]

● Rated allowable power

- No indication : 1/16 [W]
- Others : As specified

● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflamable resistor
- FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

- 1 or higher : [pF]
- less than 1 : [μ F]

● Withstand voltage

- No indication : DC50[V]
- Others : DC withstand voltage [V]
- AC indicated : AC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

● Type

- No indication : Ceramic capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

(3)Coils

- No unit : [μ H]
- Others : As specified

(4)Power Supply

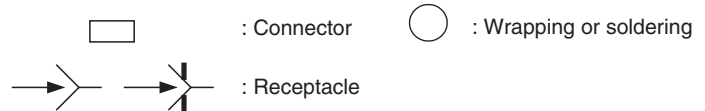


* Respective voltage values are indicated

(5)Test point



(6)Connecting method



(7)Ground symbol

- \perp : LIVE side ground
- $\text{---}\text{---}\text{---}$: ISOLATED(NEUTRAL) side ground
- $\text{---}\text{---}\text{---}$: EARTH ground
- ∇ : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (\perp) side GND and the ISOLATED(NEUTRAL) : ($\text{---}\text{---}\text{---}$) side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

NOTE

◆ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

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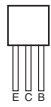
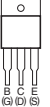

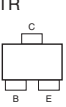
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USING P.W. BOARD


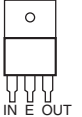
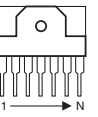


PWB ASS'Y name	AV-32WF47/R	AV-32WF47/Y	AV-32WF47/Z
MAIN P.W. BOARD	SGJ-1314A-M2	SGJ-1303A-M2	SGJ-1304A-M2
CRT SOCKET P.W. BOARD	SGJ-3305A-M2	SGJ-3301A-M2	SGJ-3303A-M2
AV SW PB P.W. BOARD	SGJ-5302A-M2	←	←
FRONT CONTROL P.W. BOARD	SGJ-6301A-M2	←	←
LED&POWER SW P.W. BOARD	SGJ-7301A-M2	←	←
USB P.W. BOARD	SGJ-8302A-M2	←	←
L/F P.W. BOARD	SGJ-9301A-M2	←	←

SEMICONDUCTOR SHAPES

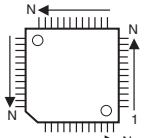
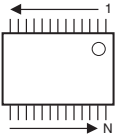
TRANSISTOR

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

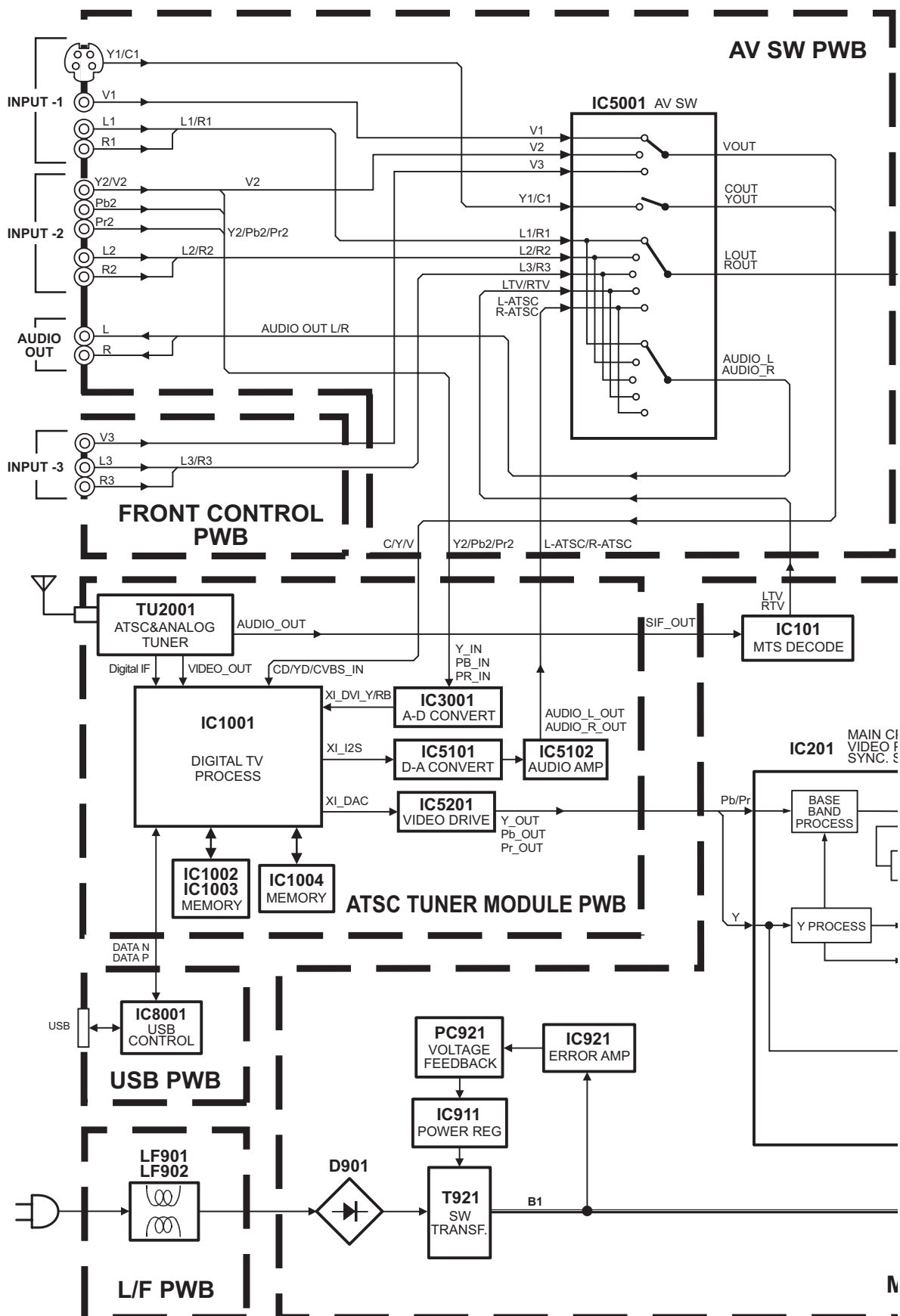
IC

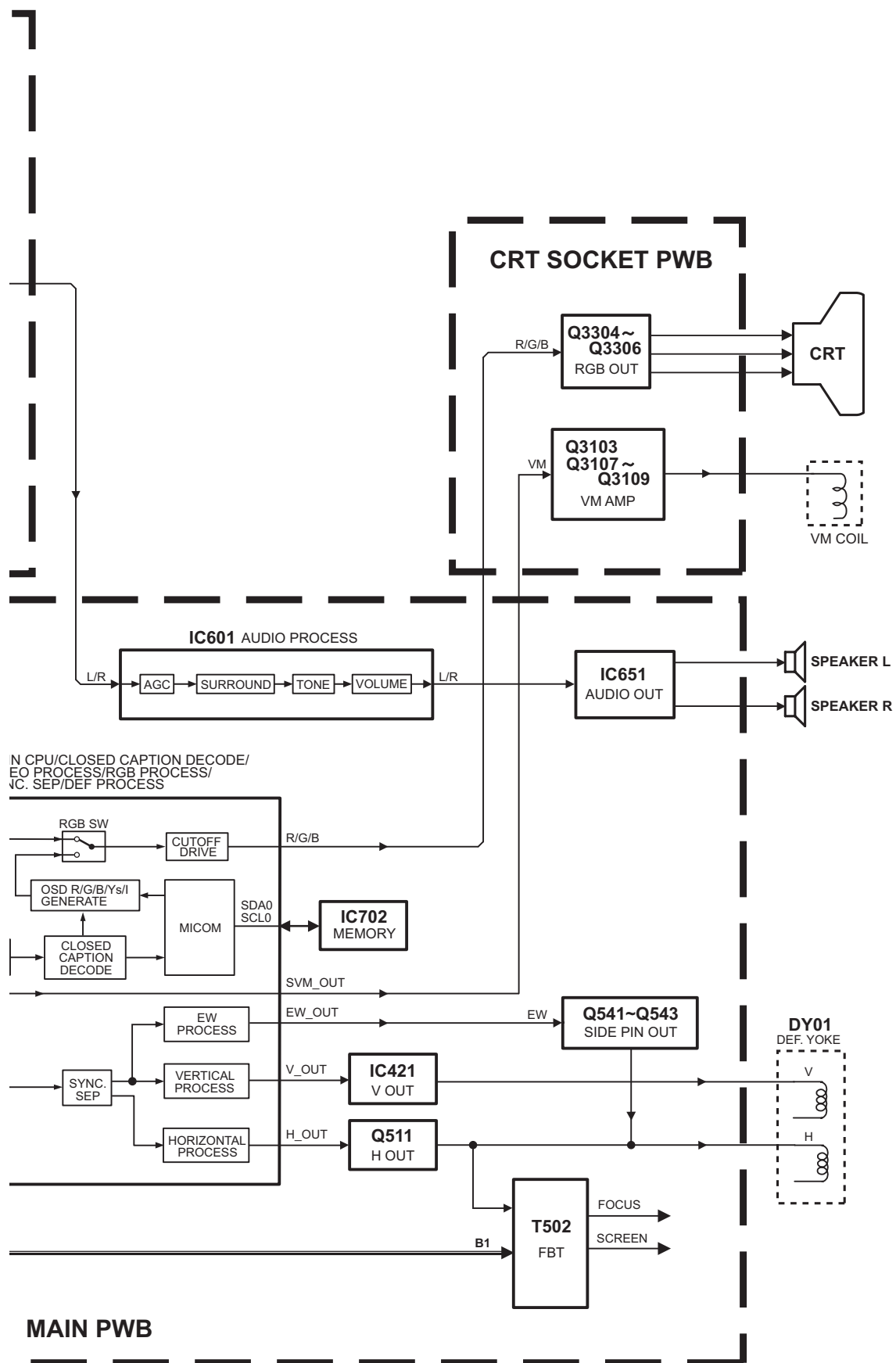
BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

BLOCK DIAGRAM

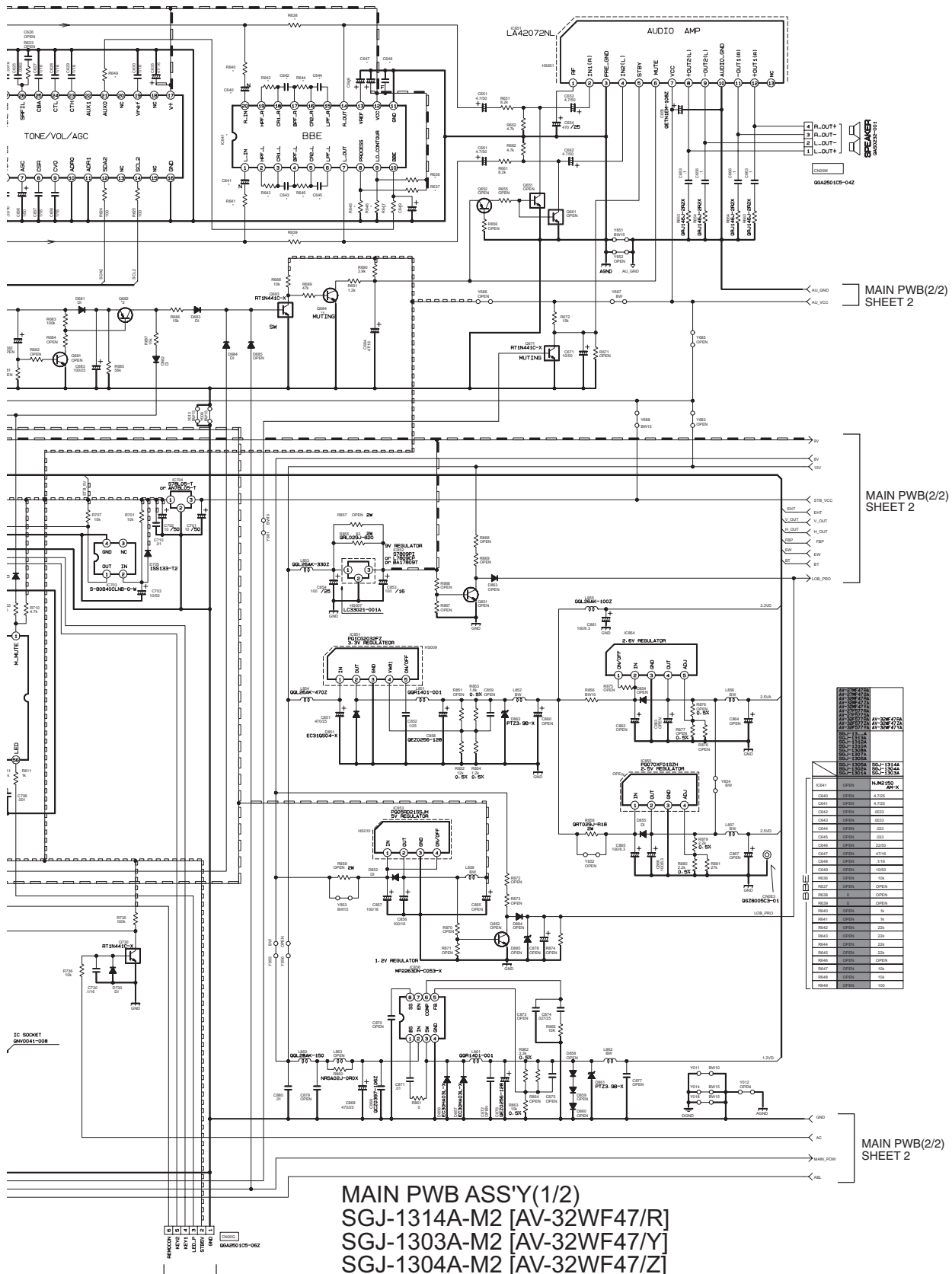




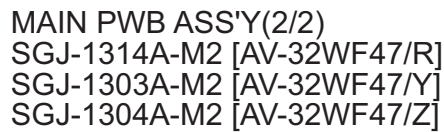
MAIN PWB CIRCUIT DIAGRAM (1/2) SHEET1



NOTE : Refer to the part list for the part number of IC702.

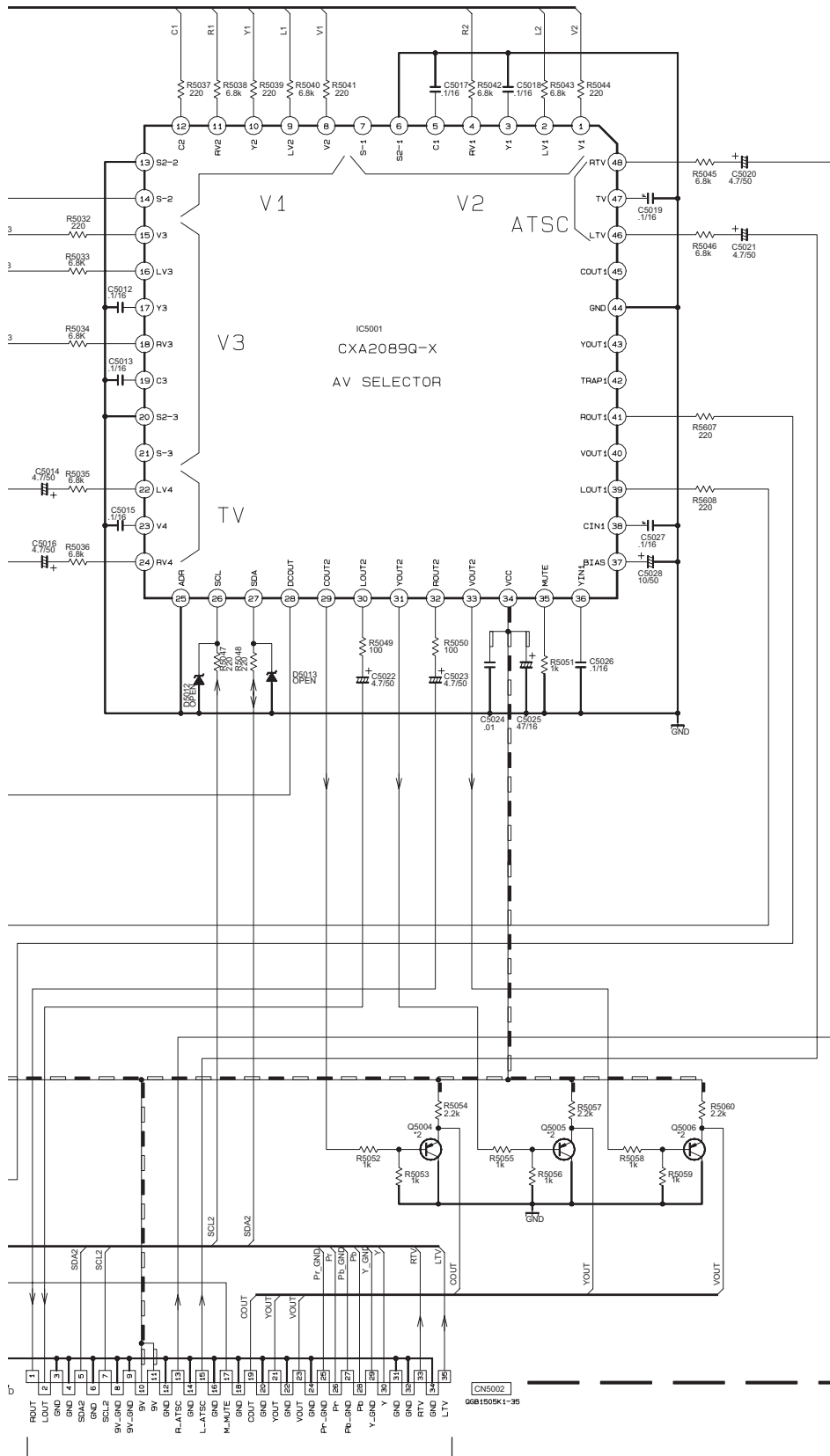


2-7(No.YA388)





AV SW PWB ASS'Y SGJ-5302A-M2

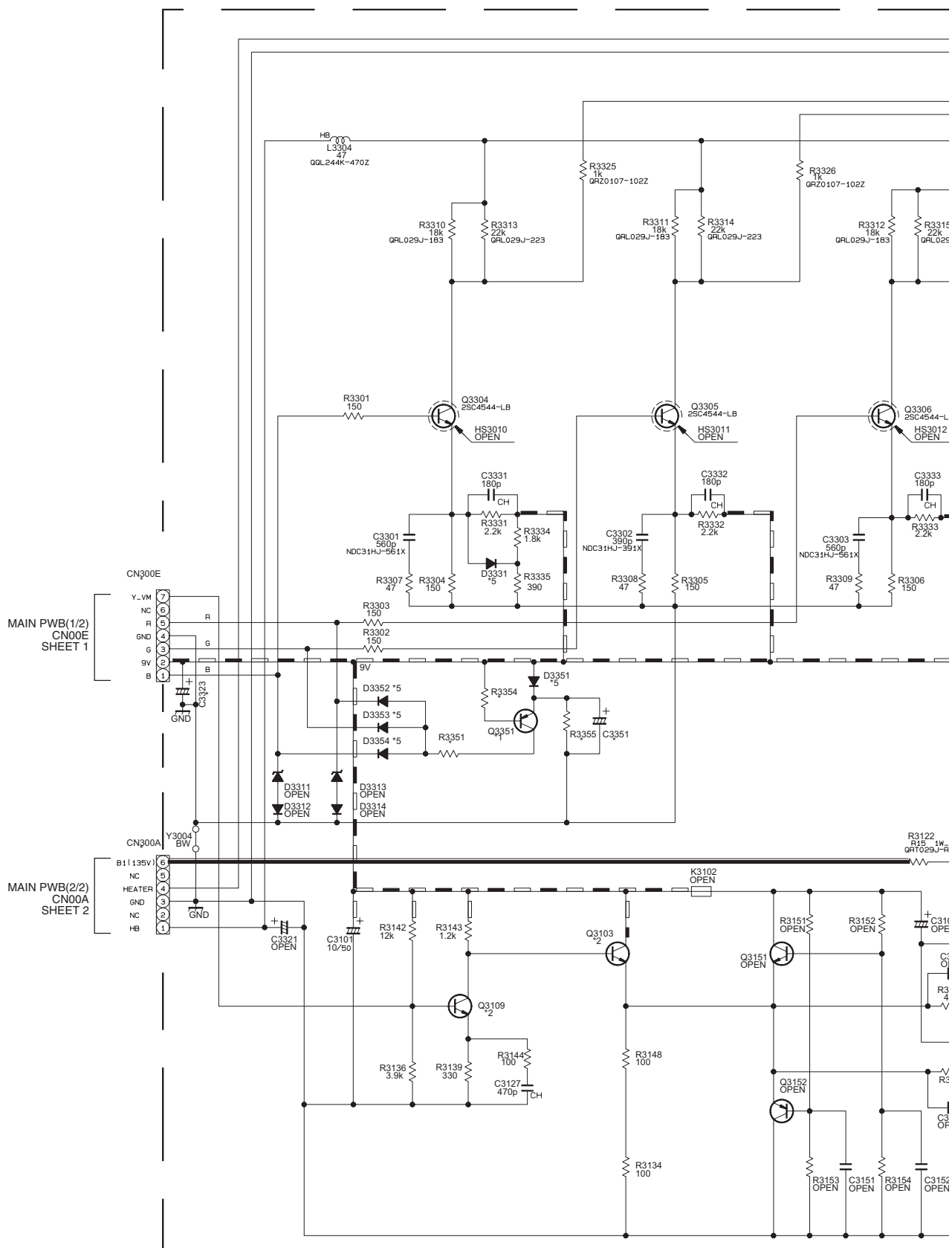


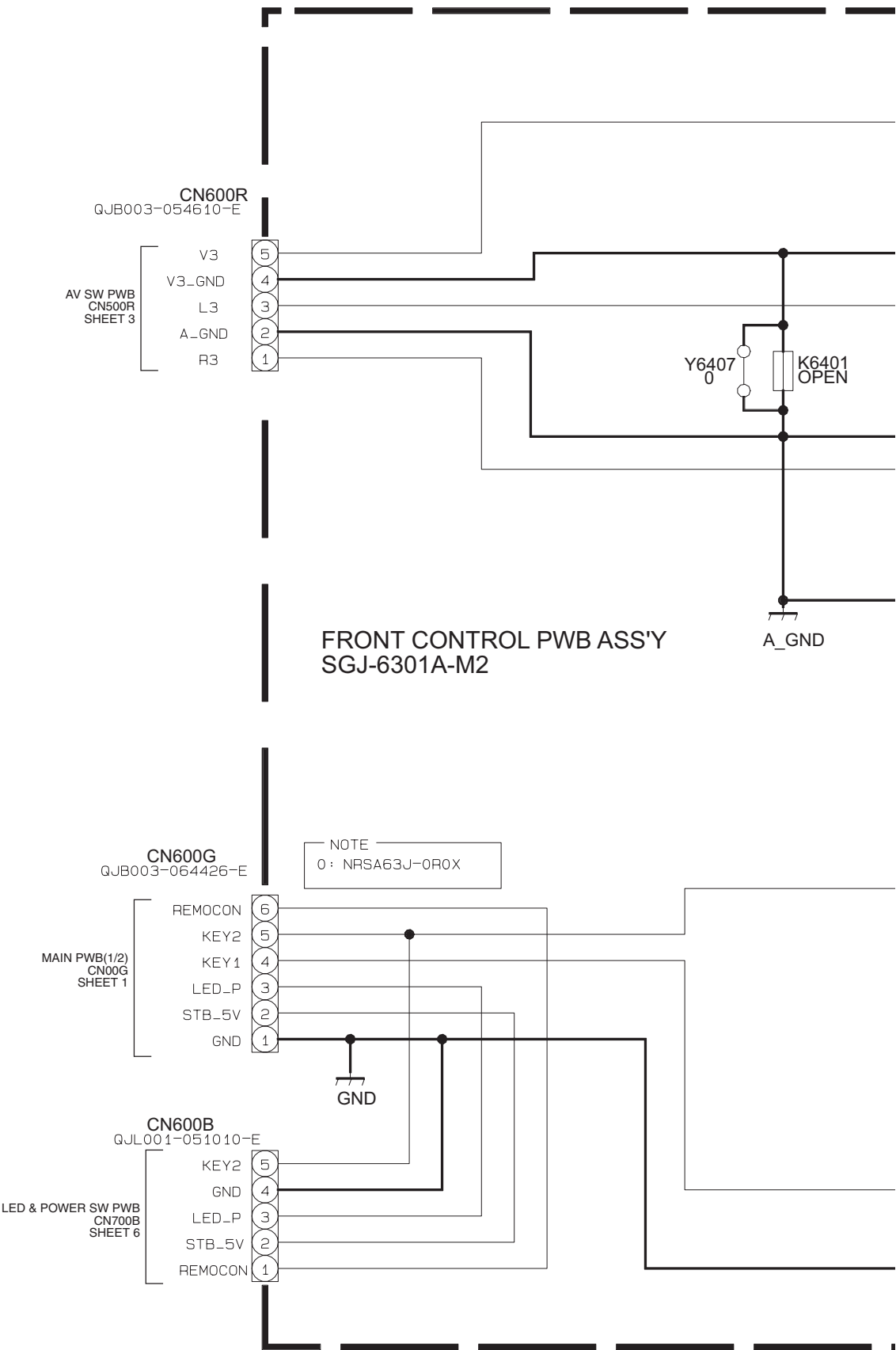
	SGJ-5301A	SGJ-5302A
J5005	OPEN	QND345-052
R5007	33k	OPEN
R5008	22k	2.2k
R5015	33k	OPEN
R5016	22k	2.2k
R5023	33k	OPEN
R5024	22k	2.2k
IC5002	OPEN	M52059P-X
R5067	OPEN	75
R5068	OPEN	75
R5069	OPEN	75
R5070	OPEN	100
R5071	OPEN	100
R5072	OPEN	100
R5073	OPEN	100
R5074	OPEN	100
R5075	OPEN	100
R5076	0	OPEN
R5077	0	OPEN
R5078	0	OPEN
C5038	OPEN	10/50
C5039	OPEN	10/50
C5040	OPEN	10/50
C5042	OPEN	47/16
C5043	OPEN	.01
D5014	OPEN	~6
D5015	OPEN	~6
D5016	OPEN	~6

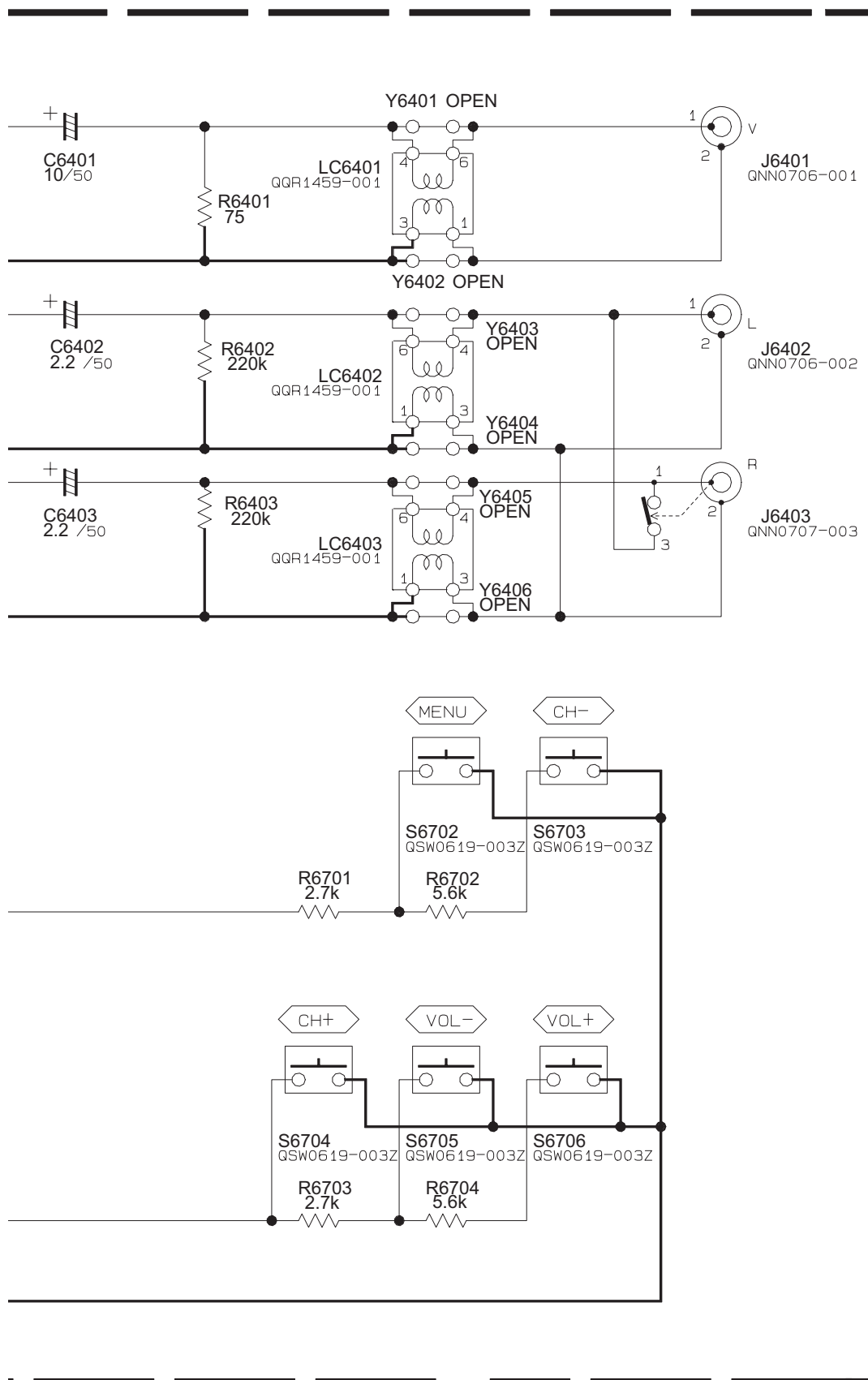
NOTE
0: M56453J-QR0X
*1: 25C3928A/GV-X
*2: 25A1530A/GV-X
*3: HTZJ9-15-T2
*4: DTC323TK-X
*5: QJY153-050Y

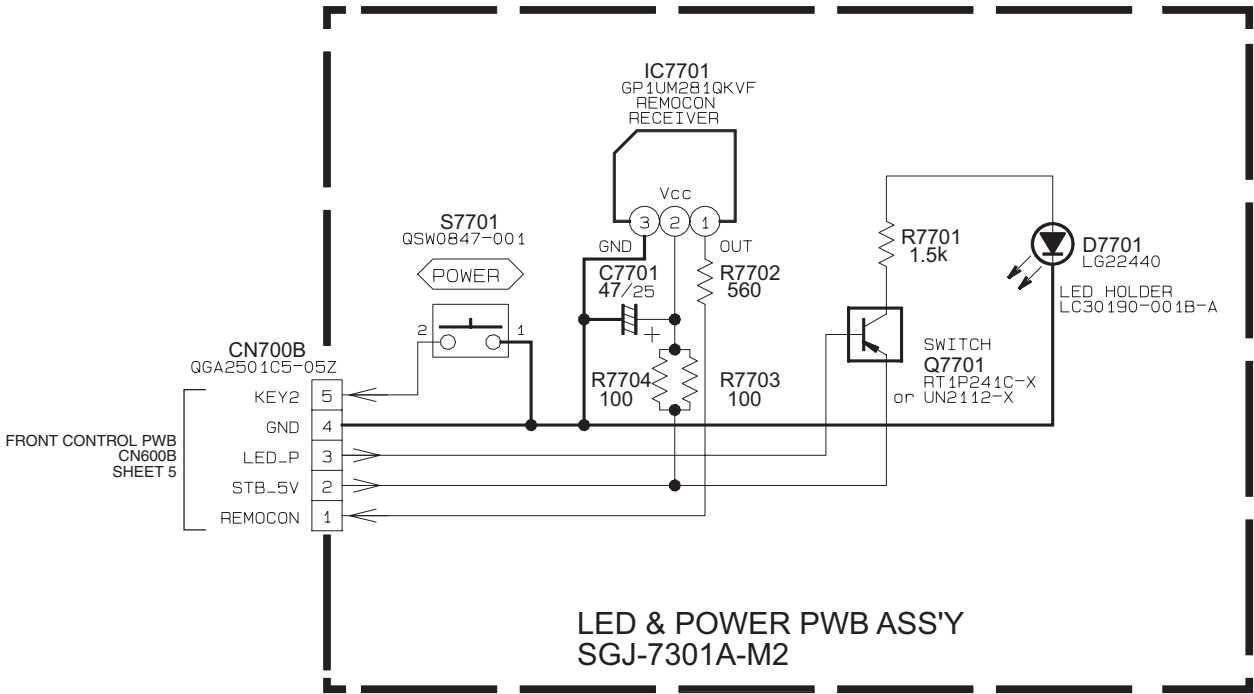
MAIN PWB(1/2)
CN002
SHEET 1

c10439001a001_0310_1/1_0.0



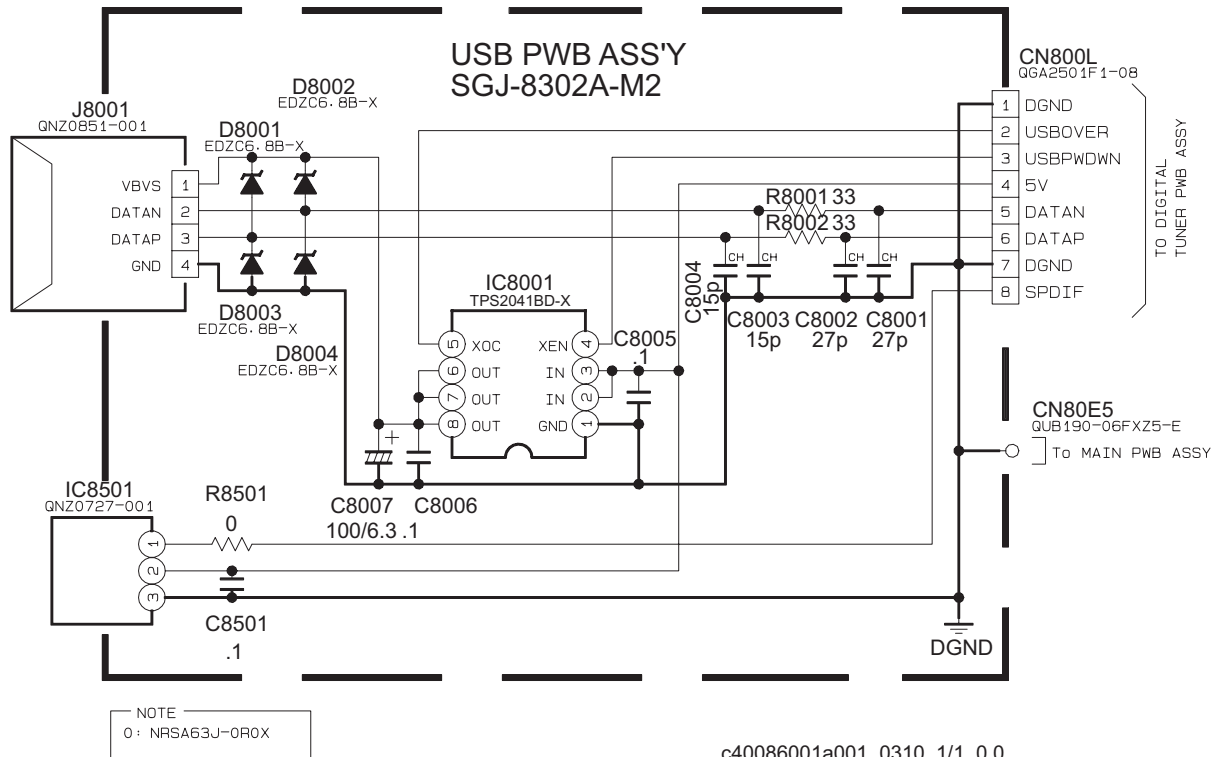


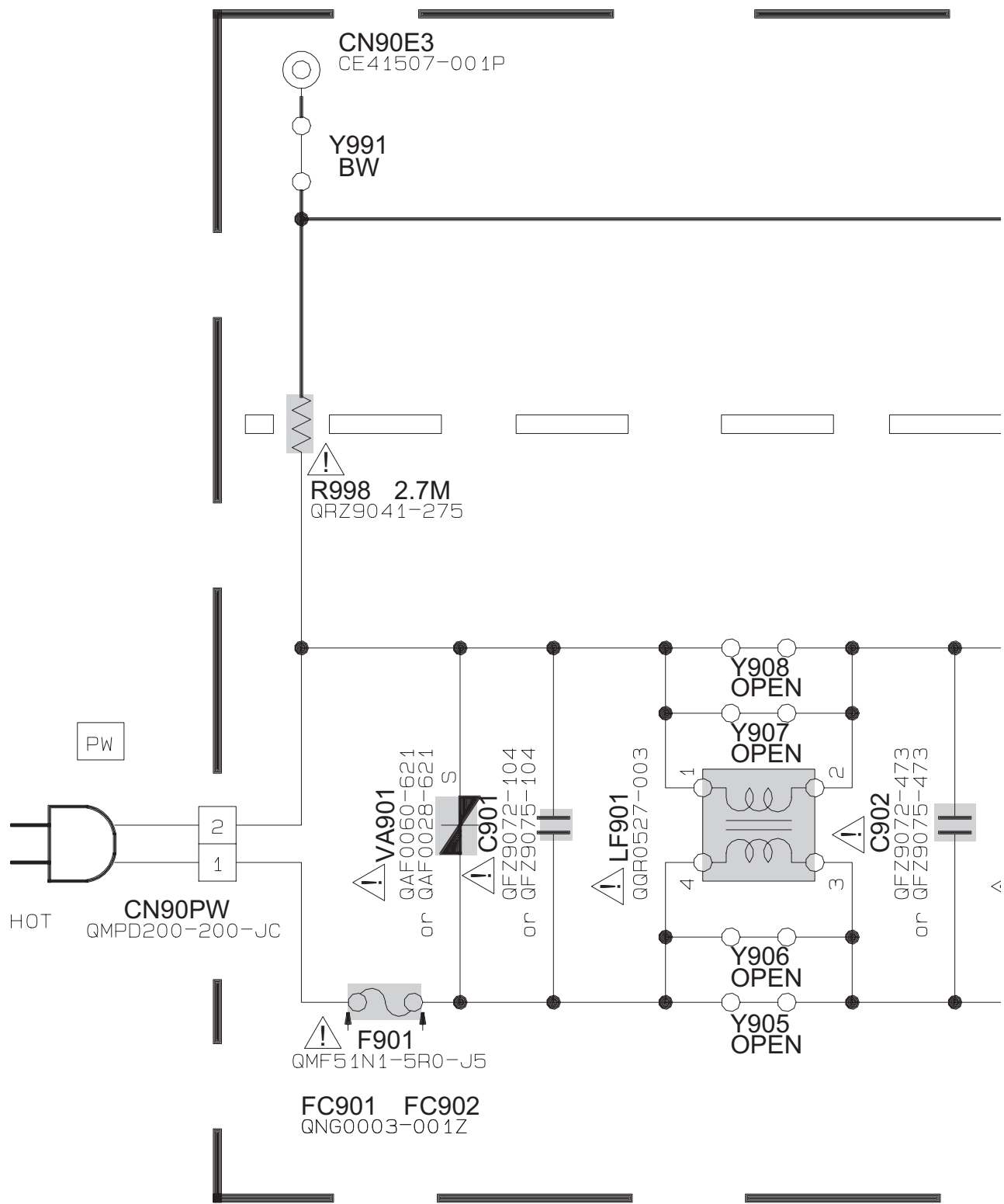




c30194001a001_0310_1/1_0.0

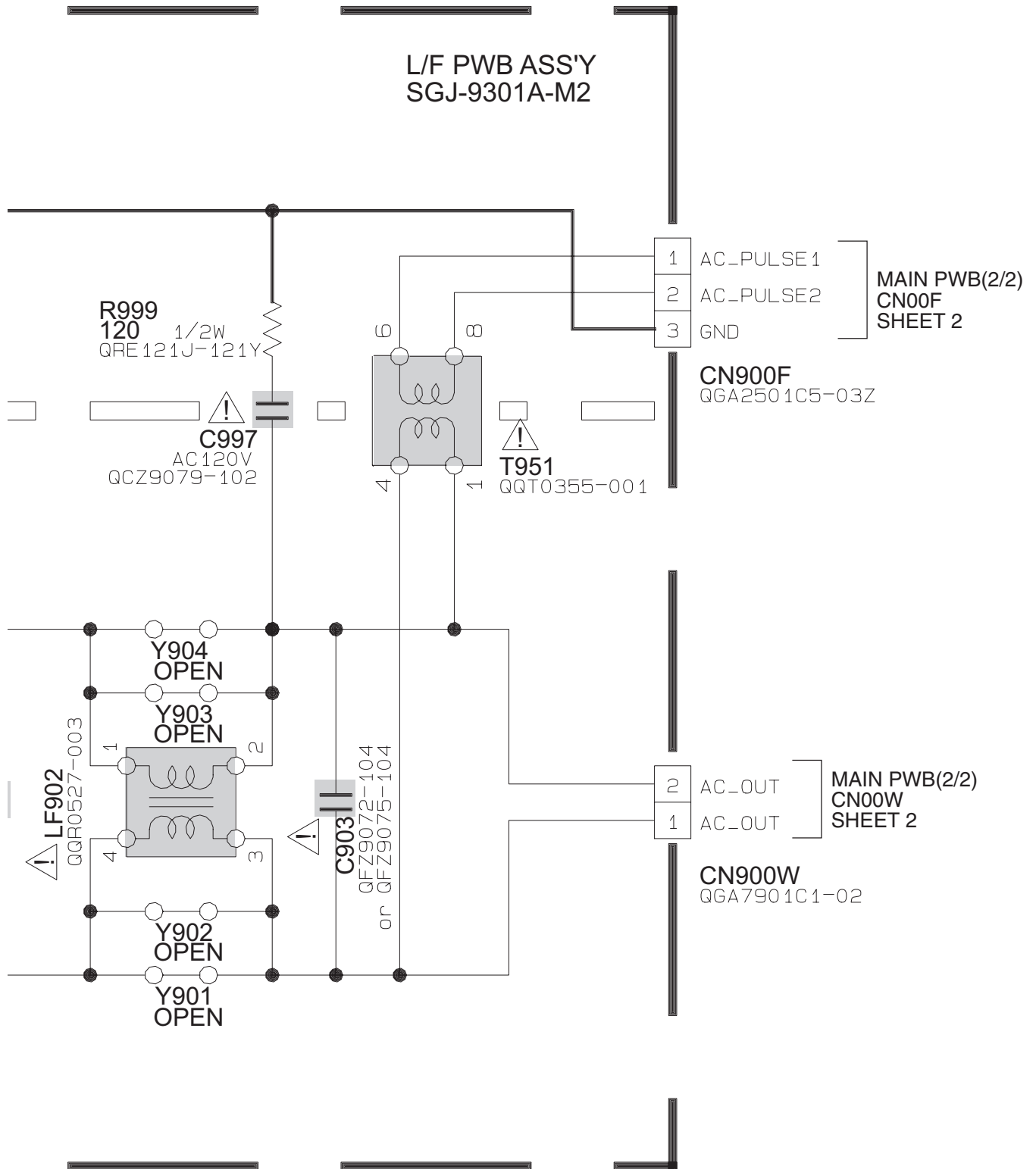
USB PWB CIRCUIT DIAGRAM SHEET 7





NOTE
BW: QUY153-050Y

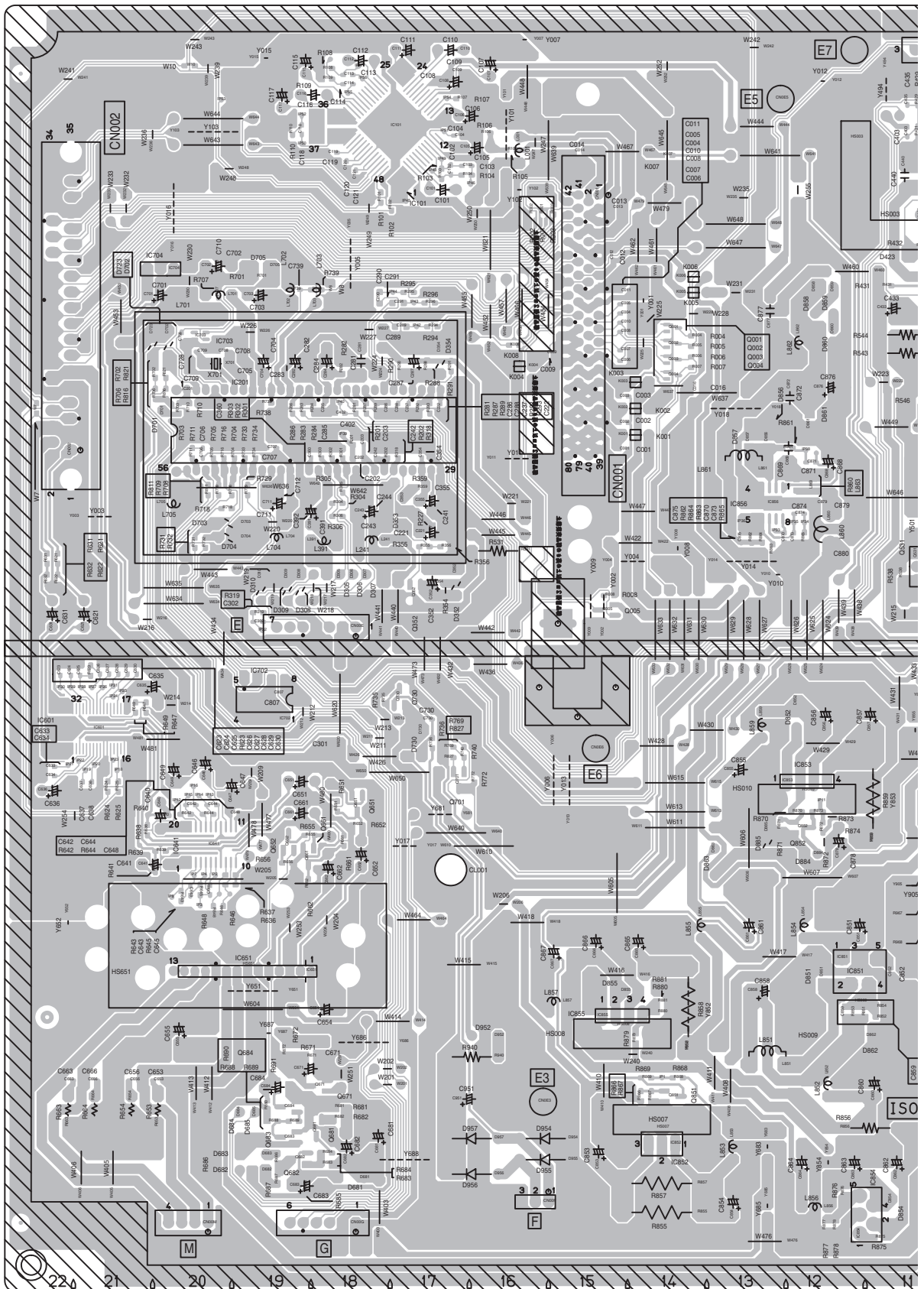
L/F PWB ASS'Y
SGJ-9301A-M2



PATTERN DIAGRAMS

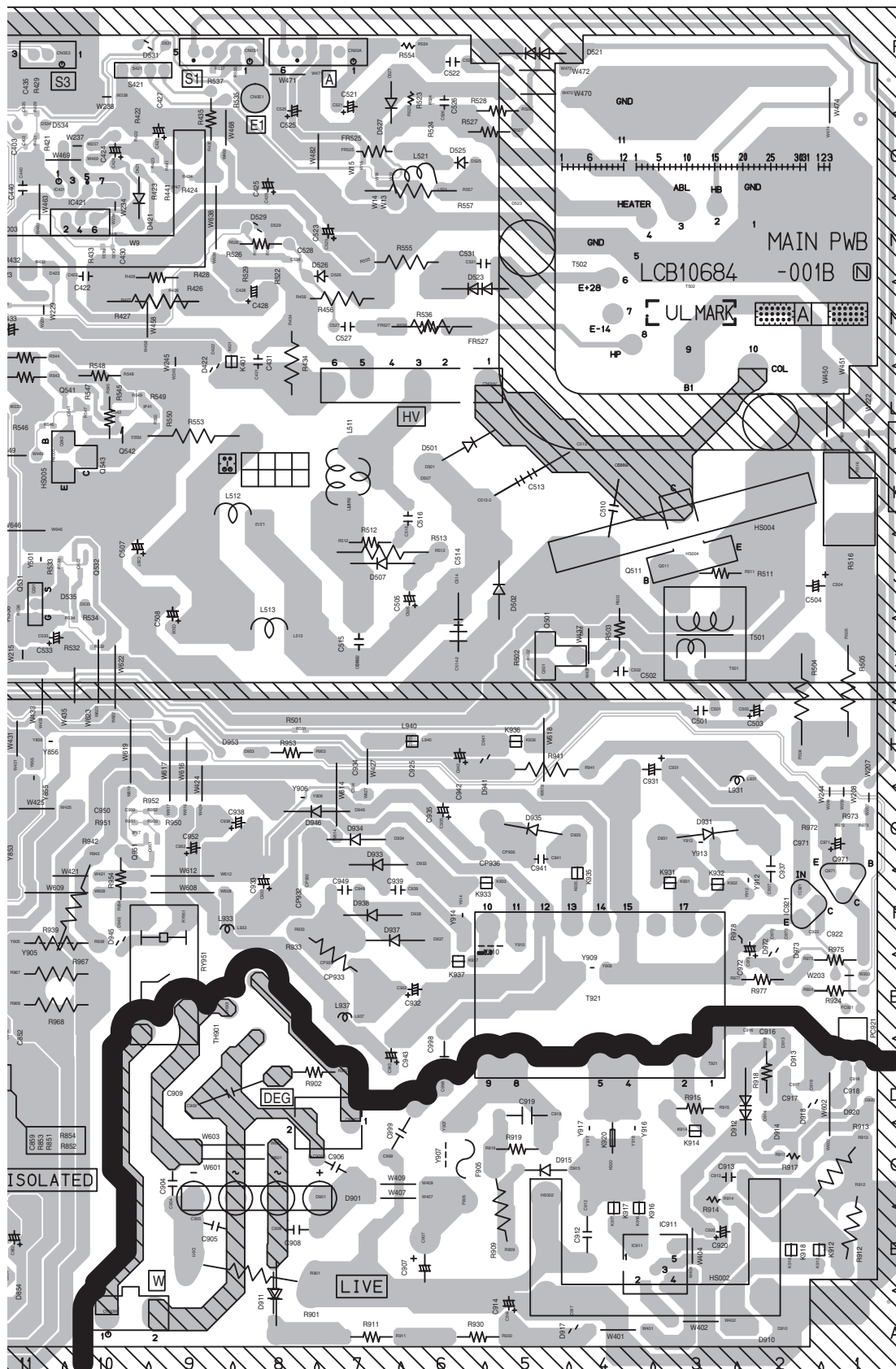
MAIN PWB PATTERN

FRONT

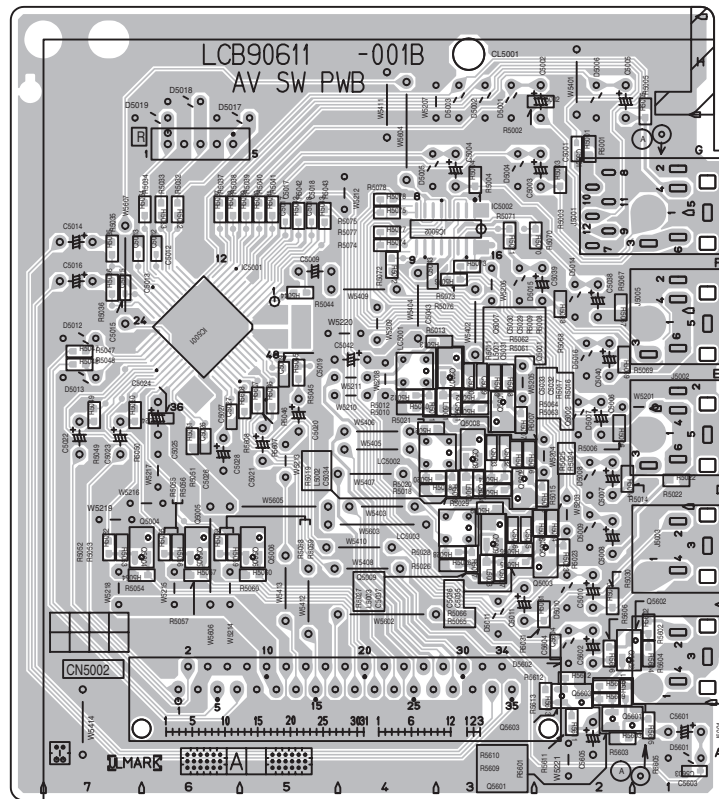




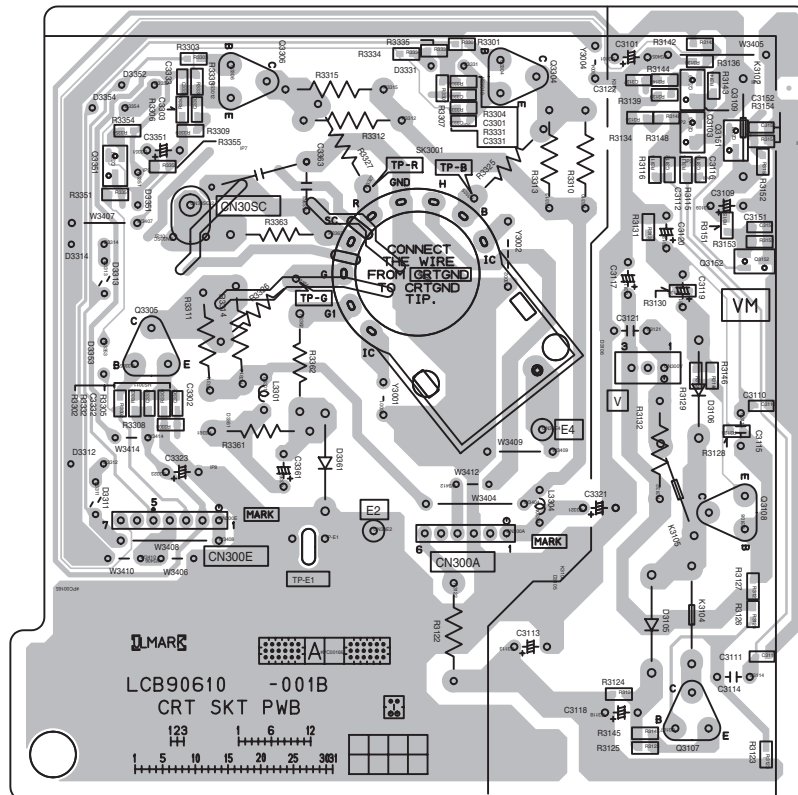
CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S)
AND ROHM'S MFR'S TYPE CP(S).



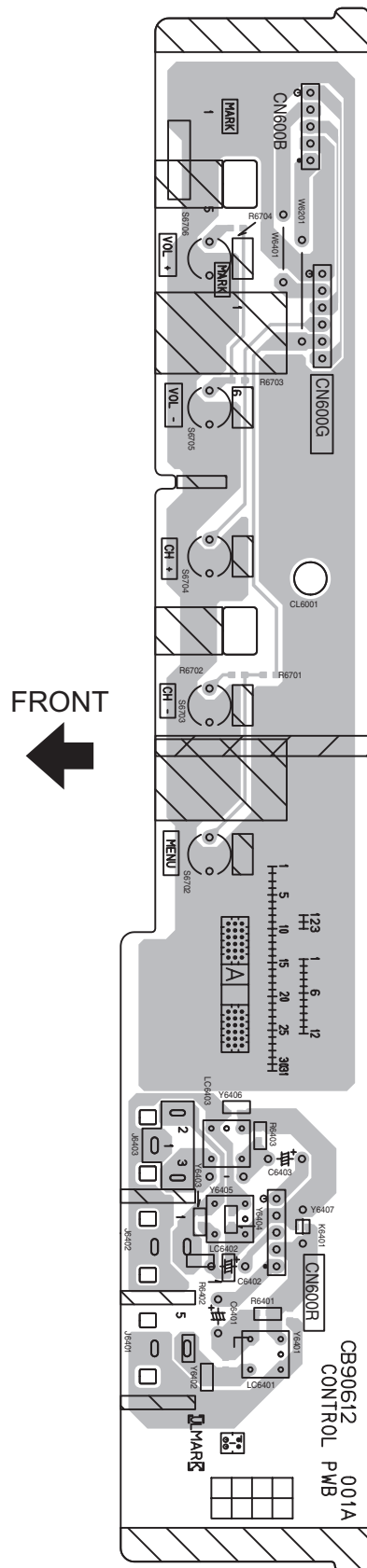
AV SW PWB PATTERN



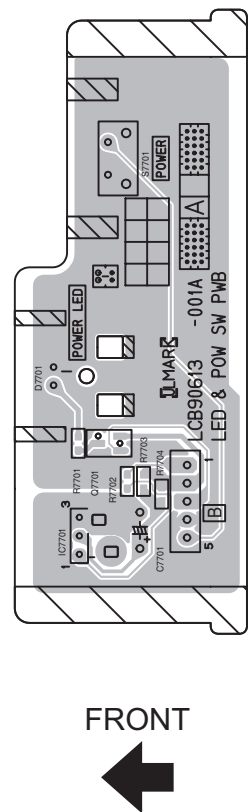
CRT SOCKET PWB PATTERN



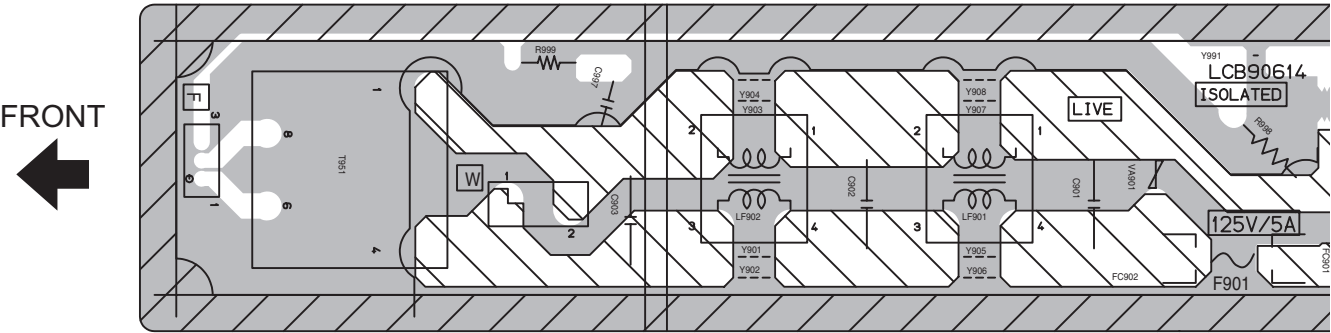
FRONT CONTROL PWB PATTERN



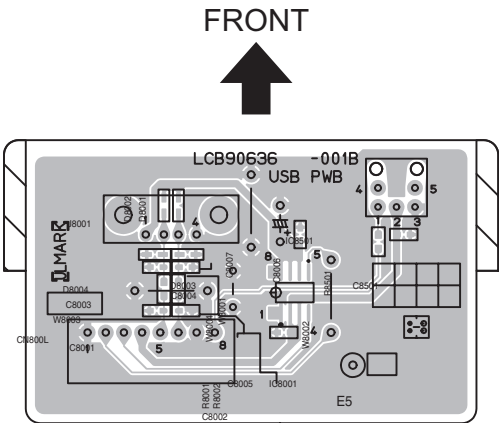
LED & POWER SW PWB PATTERN

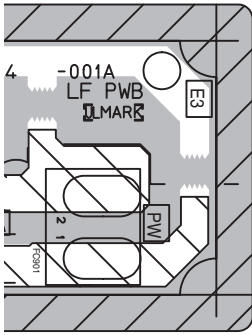


L/F PWB PATTERN



USB PWB PATTERN





VOLTAGE CHARTS

<MAIN PWB>

[P.2-5-P.2-6]

MODE PIN NO.	DC (V)
IC101	
1	5
2	0
3	4
4	3.9
5	NC
6	NC
7	NC
8	4
9	3.9
10	0
11	4.3
12	4
13	0
14	1.2
15	1.2
16	NC
17	0
18	3.2
19	NC
20	8.9
21	NC
22	4
23	4
24	2.1
25	3.9
26	NC
27	0
28	4
29	NC
30	NC
31	NC
32	4
33	2
34	4
35	4
36	2
37	3.9
38	NC
39	4
40	NC
41	4
42	4
43	0
44	4
45	4
46	4
47	4
48	5
IC201	
1	0
2	5
3	5
4	0
5	5
6	2.2
7	2
8	0
9	5.1
10	0.1
11	0
12	0
13	1.2
14	1.9
15	8.9
16	6.5
17	3.5
18	4.2
19	3.9
20	0
21	0
22	2.1
23	2.3
24	2.2
25	3.5
26	2.1
27	3.1
28	2.2
29	0
30	2.2
31	6.2
32	0
33	1.9
34	3.5
35	1.6
36	2.5
37	2.9
38	4.8
39	1.7
40	1.6
41	1.8
42	8.9
43	4.4
44	0
45	0
46	5
47	0

MODE PIN NO.	DC (V)
48	0
49	5
50	5
51	5
52	0.1
53	5
54	1.9
55	5
56	0
IC601	
1	4.4
2	NC
3	4.5
4	NC
5	4.5
6	4.5
7	1
8	0.5
9	4.5
10	0
11	0
12	5
13	NC
14	5
15	NC
16	0
17	8.9
18	NC
19	4.4
20	NC
21	NC
22	NC
23	3.1
24	3.1
25	3.1
26	4.5
27	4.5
28	4.5
29	NC
30	4.5
31	NC
32	4.4
IC651	
1	13.5
2	0
3	0
4	0
5	7.8
6	1.1
7	14.1
8	6.6
9	6.5
10	0
11	6.6
12	6.6
13	NC
IC702	
1	0
2	0
3	0
4	0
5	5
6	5
7	0
8	5
IC703	
1	5
2	5
3	NC
4	0
IC704	
1	5
2	0
3	10.4
IC851	
1	15.3
2	3.4
3	0
4	1.2
5	6.7
IC852	
1	15.4
2	0
3	8.9
IC853	
1	7.6
2	4.9
3	0
4	7.6
IC855	
1	3.2
2	2.6
3	0
4	1.2
IC856	
1	6.3
2	7.7

MODE PIN NO.	DC (V)
3	1.3
4	0
5	0.6
6	1.2
7	5.9
8	0.9
Q001	
S	3.2
D	5
G	3.3
Q002	
S	3.2
D	5
G	3.3
Q003	
S	3.3
D	5
G	3.3
Q004	
S	3.3
D	5
G	3.3
Q005	
E	0
C	0
B	3.2
Q352	
E	8.4
C	8.9
B	9
Q671	
E	0
C	7.8
B	0
Q681	
E	0
C	0
B	-0.7
Q682	
E	9.9
C	-0.8
B	10.3
Q683	
E	0
C	0
B	0.1
Q684	
E	0
C	0
B	0.6
Q701	
E	3.7
C	2.5
B	3
Q730	
E	0
C	1.8
B	3.8
CN001	
1	0
2	32
3	4.9
4	4.9
5	4.9
6	0
7	0
8	0
9	0
10	0
11	0
12	0.2
13	2.5
14	4.9
15	8.9
16	8.9
17	0
18	0
19	0
20	3.3
21	3.2
22	3.2
23	3.2
24	3.2
25	0
26	0
27	3.3
28	3.3
29	1.2
30	1.2
31	1.2
32	1.2
33	2.6
34	2.6
35	2.6
36	0
37	0
38	0

MODE PIN NO.	DC (V)
39	0
40	0
41	3.4
42	3.4
43	3.4
44	2.4
45	2.3
46	2.7
47	0
48	0
49	0
50	1.5
51	1.8
52	1.8
53	2.5
54	4.9
55	8.9
56	0
57	0
58	0
59	0
60	3.2
61	0
62	0
63	0
64	0
65	0
66	0
67	3.2
68	3.3
69	1.2
70	1.2
71	1.2
72	1.2
73	2.6
74	2.6
75	2.6
76	0
77	0
78	0
79	0
80	0

[P.2-7-P.2-8]

MODE PIN NO.	DC (V)
IC421	
1	2.6
2	27.6
3	2.6
4	0
5	15
6	28.1
7	2.7
IC911	
1	129.8
2	0.1
3	0
4	18.3
5	1.7
IC921	
1	134.6
2	12.9
3	0
Q501	
E	0
C	64.3
B	0.3
Q511	
E	0
C	133.8
B	0.1
Q531	
E	0
C	9.9
B	9.9
Q541	
E	4.5
C	0.5
B	3.9
Q542	
E	4.5
C	0
B	3.9
Q543	
E	0
C	14.3
B	0.6
Q951	
E	0
C	0.1
B	1.4
Q971	
E	134.6
C	0.1
B	134.2
PC921	
1	14
2	12.9
3	1.7
4	16.6

<AV SW PWB>

[P.2-9-P.2-10]

MODE PIN NO.	DC (V)
IC5001	
1	3.9
2	4.4
3	3.9
4	4.4
5	4.4
6	0
7	NC
8	3.9
9	4.4
10	0
11	0
12	4.4
13	0
14	4.8
15	3.9
16	4.4
17	3.9
18	4.4
19	4.4
20	0
21	NC
22	4.4
23	3.9
24	4.4
25	0
26	5
27	5
28	4.4
29	0
30	4.5
31	0
32	4.4
33	3.5
34	8.9
35	0
36	3.9
37	4.4
38	4.4
39	4.5
40	NC
41	4.4
42	NC
43	NC
44	0
45	NC
46	4.4
47	3.9
48	4.4
Q5001	
E	2.8
C	8.9
B	3.4
Q5002	
E	2.8
C	8.9
B	3.4
Q5003	
E	2.8
C	8.9
B	3.4
Q5004	
E	2.7
C	0
B	0
Q5005	
E	2.3
C	0
B	1.7
Q5006	
E	2.4
C	0
B	1.7
Q5007	
E	3.4
C	0
B	2.8
Q5008	
E	3.4
C	0
B	2.8
Q5009	
E	3.4
C	0
B	2.8
Q5601	
E	0
C	0
B	-0.4
Q5602	
E	0
C	0
B	-0.4
Q5603	
E	0.1
C	-0.4
B	0

<CRT SOCKET PWB>

[P.2-11-P.2-12]

MODE PIN NO.	DC (V)
Q3103	
E	3.3
C	11.9
B	0
Q3107	
E	132.6
C	69.9
B	132.2
Q3108	
E	4.5
C	69.5
B	5.1
Q3109	
E	2.2
C	4.1
B	2.8
Q3304	
E	1.5
C	160.5
B	2
Q3305	
E	1.6
C	159.8
B	2
Q3306	
E	1.6
C	156
B	2.1
Q3351	
E	11.8
C	-1
B	11.9

<LED & POWER SW PWB>

[P.2-15]

MODE PIN NO.	DC (V)
IC7701	
1	5
2	5
3	0
Q7701	
E	5
C	5
B	0.2

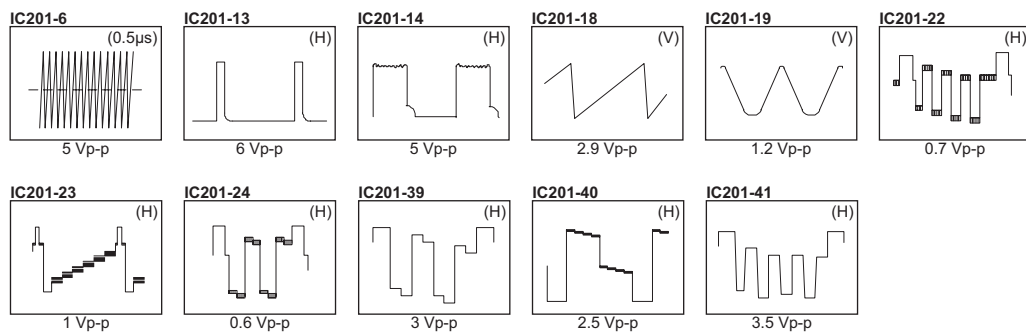
<USB PWB>

[P.2-16]

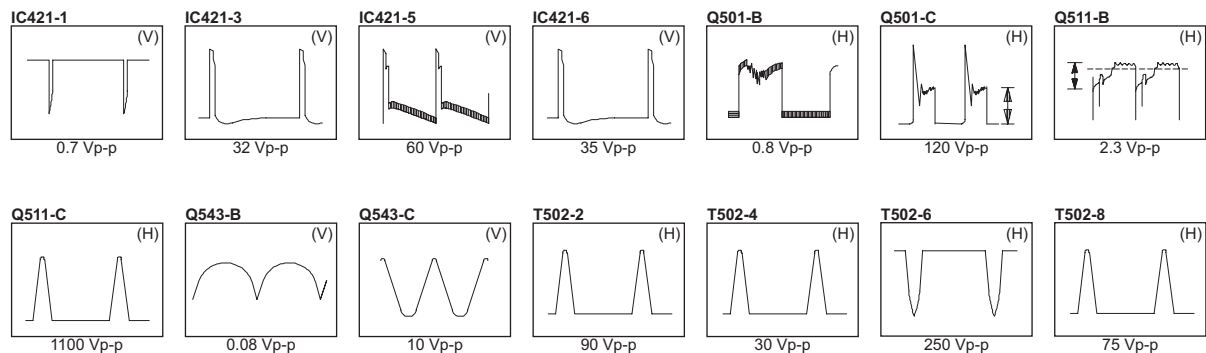
MODE PIN NO.	DC (V)
IC8501	
1	0.1
2	4.9
3	0

WAVEFORMS

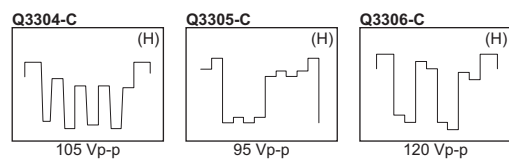
MAIN PWB(1/2)



MAIN PWB(2/2)



CRT SOCKET PWB





Victor Company of Japan, Limited
CRT Display Category 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama-city, kanagawa-prefecture, 221-8528, Japan

(No.YA388)



Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the Δ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
CR	Carbon Resistor	C CAP.	Ceramic Capacitor
FR	Fusible Resistor	E CAP.	Electrolytic Capacitor
PR	Plate Resistor	M CAP.	Mylar Capacitor
VR	Variable Resistor	CH CAP.	Chip Capacitor
HV R	High Voltage Resistor	HV CAP.	High Voltage Capacitor
MF R	Metal Film Resistor	MF CAP.	Metalized Film Capacitor
MG R	Metal Glazed Resistor	MM CAP.	Metalized Mylar Capacitor
MP R	Metal Plate Resistor	MP CAP.	Metalized Polystyrol Capacitor
OM R	Metal Oxide Film Resistor	PP CAP.	Polypropylene Capacitor
CMF R	Coating Metal Film Resistor	PS CAP.	Polystyrol Capacitor
UNF R	Non-Flammable Resistor	TF CAP.	Thin Film Capacitor
CH V R	Chip Variable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH MG R	Chip Metal Glazed Resistor	TAN. CAP.	Tantalum Capacitor
COMP. R	Composition Resistor	CH C CAP.	Chip Ceramic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
		CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

CONTENTS

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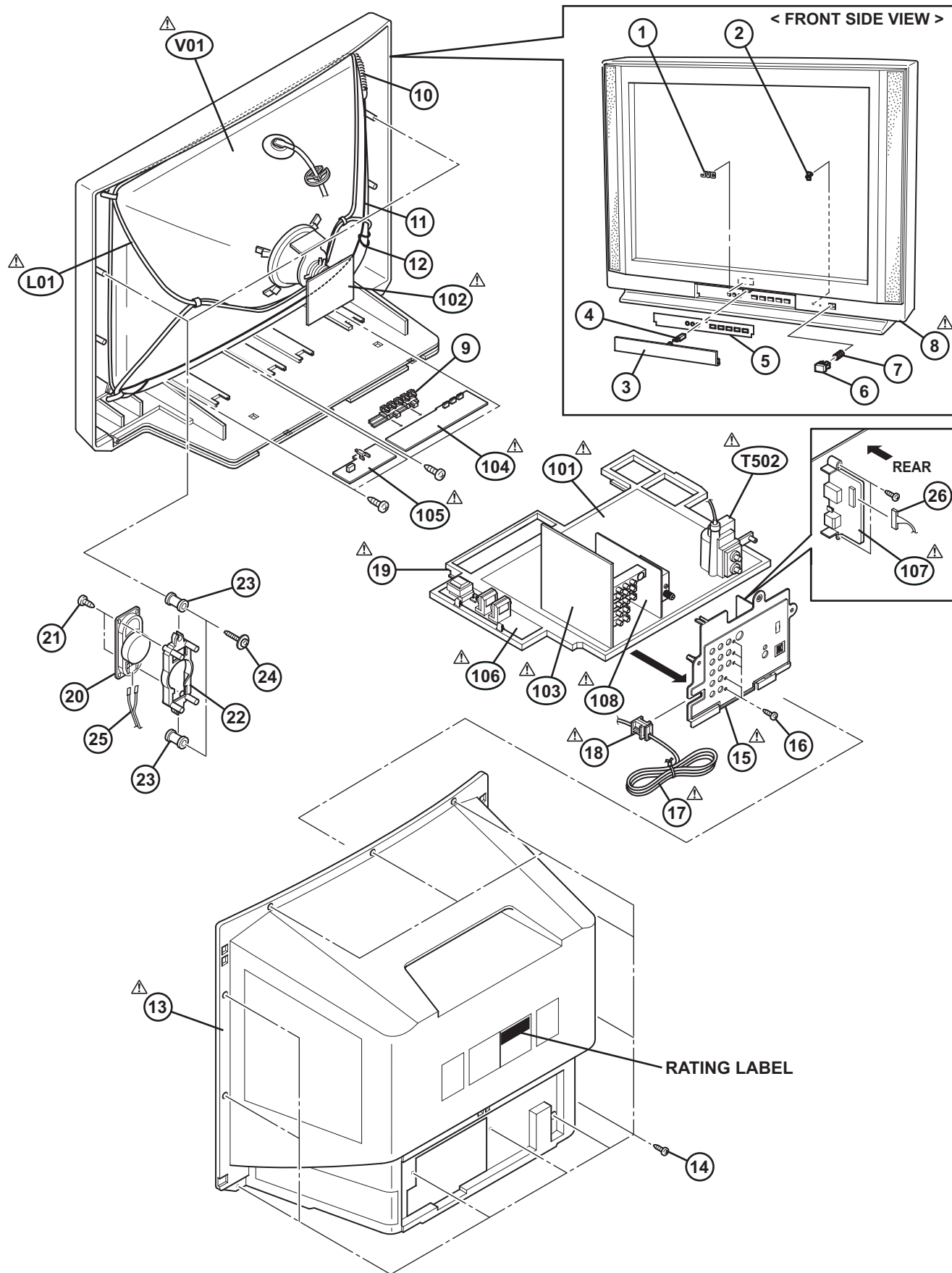
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y name	P.W.B ASS'Y No.		
	AV-32WF47/R	AV-32WF47/Y	AV-32WF47/Z
MAIN P.W.B	SGJ-1314A-M2	SGJ-1303A-M2	SGJ-1304A-M2
CRT SOCKET P.W.B	SGJ-3305A-M2	SGJ-3301A-M2	SGJ-3303A-M2
AV SW P.W.B	SGJ-5302A-M2	←	←
FRONT CONTROL P.W.B	SGJ-6301A-M2	←	←
LED&POWER SW P.W.B	SGJ-7301A-M2	←	←
USB P.W.B	SGJ-8302A-M2	←	←
L/F P.W.B	SGJ-9301A-M2	←	←
ATSC TUNER MODULE P.W.B	SSD2302A-M2	←	←
REMOTE CONTROL UNIT	RM-C1290G-1C	←	←

EXPLODED VIEW PARTS LIST -1

△	Ref.No.	Part No.	Part Name	Description	Local
△	V01	A80ALB20X09	PICTURE TUBE (ITC)	Inc.DEF YOKE, PC MAGNET, WEDGE	AV-32WF47R
△	V01	A80AKS90X03	PICTURE TUBE (ITC)	Inc.DEF YOKE, PC MAGNET, WEDGE	AV-32WF47Y
△	V01	A80ERF182X17L	PICTURE TUBE (ITC)	Inc.DEF YOKE, PC MAGNET, WEDGE	AV-32WF47Z
△	L01	QQW0116-001	DEG COIL		AV-32WF47R,AV-32WF47Y
△	L01	QQW0176-001	DEG COIL		AV-32WF47Z
△	T502	QQH0175-001	FB TRANSFER		
	1	CM48006-008-C	JVC MARK		
	2	LC30191-003A-A	REMOCON WINDOW		
	3	LC20628-002B-A	DOOR		
	4	CM48229-00A-C	DOOR LATCH		
	5	LC31238-005A-A	OPERATION SHEET		
	6	LC31237-002B-A	POWER KNOB		
	7	CM36481-002A-A	SPRING		
△	8	LC11048-024A-A	FRONT CABINET ASSY		
	9	LC20217-006A-A	CONTROL KNOB		
	10	A48457-4-S	SPRING		
	11	WJY0016-002A-E	E-BRAIDED ASSY		
	12	WJY0013-003A-E	E-BRAIDED ASSY		
△	13	LC11042-002A-A	REAR COVER		
	14	QYSBSFG4016ZA	TAP SCREW	M4 x 16mm(x12)	
△	15	LC22070-002B-A	TERMINAL BOARD		
	16	QYSBSB3010ZA	TAP SCREW	M3 x 10mm(x5)	
△	17	QMPD200-200-JC	POWER CORD(US/CA)	2m BLACK	
△	18	LC20106-001D-A	POWER CORD CLAMP		
△	19	LC10883-003A-A	CHASSIS BASE		
	20	QAS0101-001	SPEAKER	SP01/SP02(x2)	
	21	QYSBSB4012ZA	TAP SCREW	M4 x 12mm(x4)	
	22	LC20629-001B-A	SPEAKER HOLDER	(x2)	
	23	LC40226-005A-H	SPACER	(x4)	
	24	LC41029-002A-A	TAPPING SCREW	(x4)	
	25	WJJ0475-002A-E	SPEAKER WIRE	SP - MAIN CN00M	
	26	WJJ0711-001A-E	SIN CR C-C WIRE	ATSC TUNER - USB CN800L	
△	101	SGJ-1314A-M2	MAIN PWB		AV-32WF47R
△	101	SGJ-1303A-M2	MAIN PWB		AV-32WF47Y
△	101	SGJ-1304A-M2	MAIN PWB		AV-32WF47Z
△	102	SGJ-3305A-M2	CRT SOCKET PWB		AV-32WF47R
△	102	SGJ-3301A-M2	CRT SOCKET PWB		AV-32WF47Y
△	102	SGJ-3303A-M2	CRT SOCKET PWB		AV-32WF47Z
△	103	SGJ-5302A-M2	AV SW PWB		
△	104	SGJ-6301A-M2	FRONT CONTROL PWB		
△	105	SGJ-7301A-M2	LED&POWER SW PWB		
△	106	SGJ-9301A-M2	L/F PWB		
△	107	SGJ-8302A-M2	USB PWB		
△	108	SSD-2302A-M2	ATSC TUNER MOULE PWB		

EXPLODED VIEW -1



PRINTED WIRING BOARD PARTS LIST [AV-32WF47/R]

MAIN P.W. BOARD ASS'Y (SGJ-1314A-M2)

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
IC101	CXA2094Q-X	IC	(SERVICE)	D941	MTZJ33A-T2	Z DIODE	
IC201	TM8812CSDNG6H60	IC(MCU)		D945	MTZJ9.1B-T2	Z DIODE	
IC421	LA78041	IC		D952	1SS133-T2	SI DIODE	
IC601	NJW1143AV-W	IC		D953	1SS133-T2	SI DIODE	
IC641	NJM2150AM-X	IC		D954	1N4003SG-T2	SI DIODE	
IC651	LA42072NL	IC		D955	1N4003SG-T2	SI DIODE	
IC702	ATE08-32WF47R	IC		D956	1N4003SG-T2	SI DIODE	
IC703	S-80840CLNB-G-W	IC		D957	1N4003SG-T2	SI DIODE	
IC704	S78L05-T	IC		D972	MTZJ15C-T2	Z DIODE	
IC851	PQ1CG2032FZ	IC		D973	1SS133-T2	SI DIODE	
IC852	S7809PI	IC		C009	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
IC853	PQ05RD21SSJH	IC		C101	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
IC855	PQ070XF01SZH	IC		C102	NCB31HK-562X	C CAPACITOR	5600pF 50V K
IC856	MP2263DN-C053-X	IC		C103	NCB31EK-123X	C CAPACITOR	0.012uF 25V K
△IC911	STR-G9626-F3	IC		C104	NCB31CK-105X	C CAPACITOR	1uF 16V K
△IC921	SE135N	IC		C105	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
				C106	QETN1HM-106Z	E CAPACITOR	10uF 50V M
				C107	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
				C108	QETN1CM-107Z	E CAPACITOR	100uF 16V M
				C109	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C110	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
				C111	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
				C112	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
				C113	NCB31HK-272X	C CAPACITOR	2700pF 50V K
				C114	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
				C115	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M
				C116	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
				C117	QETN1HM-106Z	E CAPACITOR	10uF 50V M
				C118	NCB31CK-105X	C CAPACITOR	1uF 16V K
				C119	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C120	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C121	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C202	NCB21AK-105X	C CAPACITOR	1uF 10V K
				C203	NCB31HK-152X	C CAPACITOR	1500pF 50V K
				C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M
				C222	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
				C237	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
				C241	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C242	NCB21AK-225X	C CAPACITOR	2.2uF 10V K
				C243	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M
				C244	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C281	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J
				C282	QETN1CM-107Z	E CAPACITOR	100uF 16V M
				C283	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C284	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
				C285	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C286	NCB21CK-474X	C CAPACITOR	0.47uF 16V K
				C287	QETN1CM-107Z	E CAPACITOR	100uF 16V M
				C288	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C289	NCB21AK-105X	C CAPACITOR	1uF 10V K
				C290	NCB21AK-105X	C CAPACITOR	1uF 10V K
				C291	NCB21AK-105X	C CAPACITOR	1uF 10V K
				C301	NCZ1064-225X	C CAPACITOR	2.2uF
				C302	NCB31EK-104X	C CAPACITOR	0.1uF 25V K
				C352	QETN1EM-476Z	E CAPACITOR	47uF 25V M
				C354	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C360	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C391	QETN1CM-107Z	E CAPACITOR	100uF 16V M
				C392	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
				C422	QFN32AK-102Z	M CAPACITOR	1000pF 100V K
				C424	QETN1VM-107Z	E CAPACITOR	100uF 35V M
				C425	QETN1VM-477Z	E CAPACITOR	470uF 35V M
				C427	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
				C428	QETM1EM-228	E CAPACITOR	2200uF 25V M
				C431	QFLC2AK-563Z	M CAPACITOR	0.056uF 100V K
				C433	QETN1EM-476Z	E CAPACITOR	47uF 25V M
				C435	NCB31HK-183X	C CAPACITOR	0.018uF 50V K
				C440	QCS32HJ-100Z	C CAPACITOR	10pF 500V J
				C501	QCB32HK-151Z	C CAPACITOR	150pF 500V K
				C502	QCB32HK-331Z	C CAPACITOR	330pF 500V K
				C503	QEHR2CM-105Z	E CAPACITOR	1uF 160V M
				C504	QEZ0203-107	E CAPACITOR	100uF 160V M
				C507	QEZ0195-475Z	E CAPACITOR	4.7uF 50V M
				△C510	QFZ0200-382	MPP CAPACITOR	3800pF 1.5kV H
				△C513	QFZ0198-133	MPP CAPACITOR	0.013uF 1.5kV H
				C514	QFP32JJ-183	PP CAPACITOR	0.018uF 630V J
				C515	QFZ0197-474	MPP CAPACITOR	0.47uF 250V J
				C516	QCB32HK-561Z	C CAPACITOR	560pF 500V K
				C521	QETN2EM-106Z	E CAPACITOR	10uF 250V M
				C523	QEHR1VM-108Z	E CAPACITOR	1000uF 35V M
				C525	QETN1VM-107Z	E CAPACITOR	100uF 35V M
				C526	QFV21HJ-824Z	MF CAPACITOR	0.82uF 50V J
				C527	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J
				C533	QETN1HM-106Z	E CAPACITOR	10uF 50V M
				C621	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
				C623	NCB31HK-102X	C CAPACITOR	1000pF 50V K
D308	MTZJ4.7A-T2	Z DIODE					
D309	MTZJ4.7A-T2	Z DIODE					
D310	MTZJ4.7A-T2	Z DIODE					
D352	MTZJ9.1C-T2	Z DIODE					
D353	1SS133-T2	SI DIODE					
D354	MTZJ3.3A-T2	Z DIODE					
D421	1N4003SG-T2	SI DIODE					
D422	MTZJ75-T2	Z DIODE					
D501	RH3G-F1	SI DIODE					
D502	RU3AM-LFC4	SI DIODE					
D521	FR105GT-T3	SI DIODE					
D523	FR105GT-T3	SI DIODE					
D525	1SS81-T5	SI DIODE					
D526	1SS81-T5	SI DIODE					
D527	1SR124-400A-T2	SI DIODE					
D529	MTZJ9.1C-T2	Z DIODE					
△D531	MA4068N/Z1/-T2	Z DIODE					
D535	1SS133-T2	SI DIODE					
D681	1SS133-T2	SI DIODE					
D682	1SS133-T2	SI DIODE					
D683	1SS133-T2	SI DIODE					
D684	1SS133-T2	SI DIODE					
D701	1SS133-T2	SI DIODE					
D705	1SS133-T2	SI DIODE					
D730	1SS133-T2	SI DIODE					
D851	EC31QS04-X	SB DIODE					
D852	1SS133-T2	SI DIODE					
D855	1SS133-T2	SI DIODE					
D856	EC30HA03L-X	SB DIODE					
D857	EC30HA03L-X	SB DIODE					
D861	PTZ3.9B-X	Z DIODE					
D862	PTZ3.9B-X	Z DIODE					
△D901	GSIB460	BRIDGE DIODE					
D910	MA700A-T2	SB DIODE					
D911	FR105GT-T3	SI DIODE					
D912	FR105GT-T3	SI DIODE					
D913	1SS133-T2	SI DIODE					
D914	1SS133-T2	SI DIODE					
D915	SARS01-T2	FR DIODE					
D917	MTZJ30A-T2	Z DIODE					
D918	MTZJ5.1C-T2	Z DIODE					
D920	1SS133-T2	SI DIODE					
D931	RU4AM-LFT2	SI DIODE					
D933	HER202G-FL	SI DIODE					
D935	HER202G-FL	SI DIODE					
D938	HER202G-FL	SI DIODE					

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C624	NCB31CK-334X	C CAPACITOR	0.33uF 16V K	C972	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C625	NCB31HK-822X	C CAPACITOR	8200pF 50V K	△C998	QCZ9074-103	C CAPACITOR	0.01uF AC250V M
C627	NCB31CK-105X	C CAPACITOR	1uF 16V K	△C999	QCZ9074-103	C CAPACITOR	0.01uF AC250V M
C628	NCB31CK-105X	C CAPACITOR	1uF 16V K				
C629	NCB31CK-105X	C CAPACITOR	1uF 16V K	R001	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C630	NCB31CK-105X	C CAPACITOR	1uF 16V K	R002	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C631	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R003	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C633	NCB31HK-102X	C CAPACITOR	1000pF 50V K	R004	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C634	NCB31CK-334X	C CAPACITOR	0.33uF 16V K	R005	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C635	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R006	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C636	QETN1HM-105Z	E CAPACITOR	1uF 50V M	R007	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C637	NCB31CK-105X	C CAPACITOR	1uF 16V K	R008	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C638	NCB31CK-105X	C CAPACITOR	1uF 16V K	R101	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C640	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	R102	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C641	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	R103	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
C642	NCB31HK-332X	C CAPACITOR	3300pF 50V K	R104	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C643	NCB31HK-332X	C CAPACITOR	3300pF 50V K	R105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C644	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	R106	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
C645	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	R107	NRSA63D-623X	MG RESISTOR	62kΩ 1/16W D
C646	QETN1HM-226Z	E CAPACITOR	22uF 50V M	R108	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
C647	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R109	NRSA63D-302X	MG RESISTOR	3kΩ 1/16W D
C648	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	R110	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
C649	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R201	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
C651	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R227	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C652	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R281	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
C653	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R282	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
C654	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R283	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
C655	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	R286	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C656	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R287	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C661	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R288	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J
C662	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R289	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J
C663	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R290	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J
C666	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R292	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
C671	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R293	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
C683	QETN1EM-107Z	E CAPACITOR	100uF 25V M	R294	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C684	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R295	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C701	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R296	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C702	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C703	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C704	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R303	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C705	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R304	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C706	NCB31HK-102X	C CAPACITOR	1000uF 50V K	R305	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C708	NDC31HJ-220X	C CAPACITOR	22pF 50V J	R306	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C709	NDC31HJ-220X	C CAPACITOR	22pF 50V J	R318	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C710	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R319	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
C711	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R354	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C712	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R355	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C728	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R356	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C730	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R359	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C807	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R421	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
C851	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R423	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
C852	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	R424	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
C853	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R426	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
C854	QETN1EM-107Z	E CAPACITOR	100uF 25V M	R427	QRT029J-1R2	MF RESISTOR	1.2Ω 2W J
C856	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R428	QRE121J-120Y	C RESISTOR	12Ω 1/2W J
C857	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	R429	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
C858	QEZO256-128	E CAPACITOR	1200uF 10V M	R431	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
C861	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R432	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C865	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R433	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
C866	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R434	QRL029J-221	OMF RESISTOR	220Ω 2W J
C868	QETM1EM-228	E CAPACITOR	2200uF 25V M	R435	QRE121J-821Y	C RESISTOR	820Ω 1/2W J
C869	QCZ0397-106Z	C CAPACITOR	10uF 25V M	R441	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C871	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R456	QRL029J-391	OMF RESISTOR	390Ω 2W J
C874	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	R501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C876	QEZO256-128	E CAPACITOR	1200uF 10V M	R502	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C880	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R503	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J
△C905	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	R504	QRL039J-152	OMF RESISTOR	1.5kΩ 3W J
C907	QEZO644-567	E CAPACITOR	560uF 200V K	R505	QRL039J-182	OMF RESISTOR	1.8kΩ 3W J
△C908	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	R511	QRE121J-220Y	C RESISTOR	22Ω 1/2W J
C912	QCZ0340-222	C CAPACITOR	2200pF 2kV K	R512	QRE121J-681Y	C RESISTOR	680Ω 1/2W J
C913	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	R516	QRZ0221-2R0	OMF RESISTOR	2Ω 7W K
C914	QETN1HM-107Z	E CAPACITOR	100uF 50V M	R524	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
C916	NDC31HJ-331X	C CAPACITOR	330pF 50V J	R526	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J
C917	NCB31HK-182X	C CAPACITOR	1800pF 50V K	R527	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
C918	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R528	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
C919	QFP32GJ-103	PP CAPACITOR	0.01uF 400V J	R529	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
C931	QEZO203-227	E CAPACITOR	220uF 160V M	△R531	QRE121J-391Y	C RESISTOR	390Ω 1/2W J
C932	QETM1EM-228	E CAPACITOR	2200uF 25V M	R532	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
C933	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	R533	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C934	NDC31HJ-221X	C CAPACITOR	220pF 50V J	R534	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C935	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	△R535	NRVA02D-272X	CMF RESISTOR	2.7kΩ 1/10W D
C937	QCZ0340-102	C CAPACITOR	1000pF 2kV K	R536	QRE121J-470Y	C RESISTOR	47Ω 1/2W J
C938	QETN1EM-227Z	E CAPACITOR	220uF 25V M	R537	NRVA02D-752X	CMF RESISTOR	7.5kΩ 1/10W D
C939	QCB32HK-152Z	C CAPACITOR	1500pF 500V K	R538	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
C941	QCB32HK-102Z	C CAPACITOR	1000pF 500V K	R543	QRE121J-122Y	C RESISTOR	1.2kΩ 1/2W J
C942	QEH1HM-105Z	E CAPACITOR	1uF 50V M	R544	QRE121J-392Y	C RESISTOR	3.9kΩ 1/2W J
C943	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	R545	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J
C951	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R546	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
C952	QETN1CM-227Z	E CAPACITOR	220uF 16V M	R547	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C971	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R548	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R553	QRL039J-330	OMF RESISTOR	33Ω 3W J	R942	QRT039J-R68	MF RESISTOR	0.68Ω 3W J
△R554	QRK126J-220X	UNF C RESISTOR	22Ω 1/2W J	R950	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R555	QRT029J-2R2	MF RESISTOR	2.2Ω 2W J	R951	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R621	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R952	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R624	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R953	QRE121J-820Y	C RESISTOR	82Ω 1/2W J
R625	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R972	NRVA02D-102X	CMF RESISTOR	1kΩ 1/10W D
R631	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R973	NRVA02D-332X	CMF RESISTOR	3.3kΩ 1/10W D
R636	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R975	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J
R640	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R977	QRE121J-473Y	C RESISTOR	47kΩ 1/2W J
R641	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R978	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R642	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L001	QQL244K-6R8Z	PEAKING COIL	6.8uH K
R643	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L241	QQL244K-220Z	PEAKING COIL	22uH K
R644	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L391	QQL244K-220Z	PEAKING COIL	22uH K
R645	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L511	QQR1027-003	LINEARITY COIL	
R647	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	L512	QQLZ036-821	COIL	820uH K
R648	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	L521	QQLZ018-340	COIL	34uH
R649	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	L704	QQL244K-220Z	PEAKING COIL	22uH K
R651	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	L705	QQL244K-220Z	PEAKING COIL	22uH K
R652	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	L851	QQR1401-001	CHOKE COIL	
R653	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L853	QQL26AK-330Z	CHOKE COIL	33uH K
R654	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L854	QQL26AK-470Z	CHOKE COIL	47uH K
R661	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	L855	QQL26AK-100Z	CHOKE COIL	10uH K
R662	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	L860	QQL28AK-150	COIL	15uH K
R663	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L861	QQR1401-001	CHOKE COIL	
R664	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L931	QQL26AK-470Z	CHOKE COIL	47uH K
R672	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	L933	QQL26AK-470Z	CHOKE COIL	47uH K
R683	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	L937	QQL26AK-470Z	CHOKE COIL	47uH K
R685	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	L940	QQR0582-001Z	FERRITE BEADS	
R686	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	T501	QQR1414-001	DRIVE TRANSF	
R687	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	△T921	QQS0376-001	SW TRANSF	
R688	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	CN001	QGB1221J1-80	CONNECTOR	B-B (1-80)
R689	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	CN002	QGB1505J1-35	CONNECTOR	B-B (1-35)
R690	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	CN00F	QJB003-032213-E	SIN ID C-B WIRE	
R691	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	CN00W	WJK0200-004A-E	E-SI C WIRE C-B	
R701	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	△CP936	ICP-N70-T	IC PROTECTOR	2.5A
R702	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	△FR525	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K002	QQR0621-002Z	FERRITE BEADS	
R704	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K004	QQR0621-002Z	FERRITE BEADS	
R705	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K007	NQR0499-002X	FERRITE BEADS	
R706	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	K401	QQR0621-002Z	FERRITE BEADS	
R708	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K912	QQR0582-001Z	FERRITE BEADS	
R709	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K916	QQR0582-001Z	FERRITE BEADS	
R710	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K917	QQR0582-001Z	FERRITE BEADS	
R711	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	K918	QQR0582-001Z	FERRITE BEADS	
R716	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K920	QQR1139-001	FERRITE BEADS	
R718	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K931	QQR0582-001Z	FERRITE BEADS	
R729	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K932	QQR0582-001Z	FERRITE BEADS	
R731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K933	QQR0582-001Z	FERRITE BEADS	
R732	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K935	QQR0582-001Z	FERRITE BEADS	
R733	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K937	QQR0582-001Z	FERRITE BEADS	
R734	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	△PC921	PS2581AL1/QW/	PHOTO COUPLER	
R735	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	△RY951	QSK0085-001	RELAY	
R736	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	S421	QSW1142-001	LEVER SWITCH	V.CENTER
R737	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	△TH901	QAD0132-3R0	P THERMISTOR	3Ω
R739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	X701	QAX0767-001Z	CRYSTAL	8.000000MHz
R740	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	CRT SOCKET P.W. BOARD ASS'Y (SGJ-3305A-M2)			
R769	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	△Ref No.	Part No.	Part Name	Description Local
R772	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	Q3103	2SC3928A/QR/-X	TRANSISTOR	
R811	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	Q3107	2SA2005/DE/	POW TRANSISTOR	
R816	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	Q3108	2SC5511/DE/	POW TRANSISTOR	
R821	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	Q3109	2SC3928A/QR/-X	TRANSISTOR	
R827	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	Q3304	2SC4544-LB	POW TRANSISTOR	
R852	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	Q3305	2SC4544-LB	POW TRANSISTOR	
R853	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D	Q3306	2SC4544-LB	POW TRANSISTOR	
R854	NRSA63D-122X	MG RESISTOR	1.2kΩ 1/16W D	Q3351	2SA1530A/QR/-X	TRANSISTOR	
R855	QRL029J-820	OMF RESISTOR	82Ω 2W J	D3105	RH1S-T3	SI DIODE	
R858	QRT029J-R18	MF RESISTOR	0.18Ω 2W J	D3106	RH1S-T3	SI DIODE	
R860	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	D3331	1SS133-T2	SI DIODE	
R861	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	D3351	1SS133-T2	SI DIODE	
R862	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	D3352	1SS133-T2	SI DIODE	
R863	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D3353	1SS133-T2	SI DIODE	
R865	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	D3354	1SS133-T2	SI DIODE	
R879	NRSA63D-222X	MG RESISTOR	2.2kΩ 1/16W D	C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R880	NRSA63D-222X	MG RESISTOR	2.2kΩ 1/16W D	C3113	QETN2CM-106Z	E CAPACITOR	10uF 160V M
R881	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	C3114	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
R901	QRF074K-1R2	UNF WW RESISTOR	1.2Ω 7W K	C3115	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
R909	QRG01GJ-470	OMF RESISTOR	47Ω 1W J	C3117	QETN2CM-106Z	E CAPACITOR	10uF 160V M
R911	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	C3118	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M
R912	QRT029J-R18	MF RESISTOR	0.18Ω 2W J	C3119	QETN1AM-107Z	E CAPACITOR	100uF 10V M
R913	QRT029J-R15	MF RESISTOR	0.15Ω 2W J				
△R914	QRK126J-681X	UNF C RESISTOR	680Ω 1/2W J				
R915	QRK129J-6R8	UNF C RESISTOR	6.8Ω 1/2W J				
△R917	QRK126J-332X	UNF C RESISTOR	3.3kΩ 1/2W J				
R918	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J				
R919	QRE121J-684Y	C RESISTOR	680kΩ 1/2W J				
R924	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J				
R930	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J				
R940	QRE121J-181Y	C RESISTOR	180Ω 1/2W J				
R941	QRL029J-183	OMF RESISTOR	18Ω 2W J				

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C3120	QETN1AM-337Z	E CAPACITOR	330uF 10V M	Q5009	2SA1530A/QR/-X	TRANSISTOR	
C3121	QCS32HJ-151Z	C CAPACITOR	150pF 500V J	Q5601	RT6N230C-X	DIGI TRANSISTOR	
C3127	NDC31HJ-471X	C CAPACITOR	470pF 50V J	Q5602	RT6N230C-X	DIGI TRANSISTOR	
C3301	NDC31HJ-561X	C CAPACITOR	560pF 50V J	Q5603	2SA1530A/QR/-X	TRANSISTOR	
C3302	NDC31HJ-391X	C CAPACITOR	390pF 50V J	D5001	MTZJ9.1C-T2	Z DIODE	
C3303	NDC31HJ-561X	C CAPACITOR	560pF 50V J	D5002	MTZJ9.1C-T2	Z DIODE	
C3323	QETN1CM-477Z	E CAPACITOR	470uF 16V M	D5003	MTZJ9.1C-T2	Z DIODE	
C3331	NDC31HJ-181X	C CAPACITOR	180pF 50V J	D5004	MTZJ9.1C-T2	Z DIODE	
C3332	NDC31HJ-181X	C CAPACITOR	180pF 50V J	D5005	MTZJ9.1C-T2	Z DIODE	
C3333	NDC31HJ-181X	C CAPACITOR	180pF 50V J	D5006	MTZJ9.1C-T2	Z DIODE	
C3351	QETN1CM-227Z	E CAPACITOR	220uF 16V M	D5007	MTZJ9.1C-T2	Z DIODE	
C3363	QCZ0121-102	C CAPACITOR	1000pF 3KV Z	D5008	MTZJ9.1C-T2	Z DIODE	
R3115	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	D5009	MTZJ9.1C-T2	Z DIODE	
R3116	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	D5010	MTZJ9.1C-T2	Z DIODE	
R3122	QRT029J-R15	MF RESISTOR	0.15Ω 2W J	D5011	MTZJ9.1C-T2	Z DIODE	
R3123	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	D5014	MTZJ9.1C-T2	Z DIODE	
R3124	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	D5015	MTZJ9.1C-T2	Z DIODE	
R3125	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	D5016	MTZJ9.1C-T2	Z DIODE	
R3126	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	D5017	MTZJ9.1C-T2	Z DIODE	
R3127	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	D5018	MTZJ9.1C-T2	Z DIODE	
R3128	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	D5019	MTZJ9.1C-T2	Z DIODE	
R3129	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	D5601	MTZJ9.1C-T2	Z DIODE	
R3130	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	D5602	MTZJ9.1C-T2	Z DIODE	
R3131	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	C5001	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
R3132	QRL029J-391	OMF RESISTOR	390Ω 2W J	C5002	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R3134	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	C5003	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R3136	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	C5004	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
R3139	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	C5005	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
R3142	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	C5006	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R3143	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	C5007	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R3144	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	C5008	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R3145	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	C5009	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M
R3146	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	C5010	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
R3148	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	C5011	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
R3301	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	C5012	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
R3302	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	C5013	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
R3303	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	C5014	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
R3304	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	C5015	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
R3305	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	C5016	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
R3306	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	C5017	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
R3307	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	C5018	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
R3308	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	C5019	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
R3309	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	C5020	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
R3310	QRL029J-183	OMF RESISTOR	18kΩ 2W J	C5021	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
R3311	QRL029J-183	OMF RESISTOR	18kΩ 2W J	C5022	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
R3312	QRL029J-183	OMF RESISTOR	18kΩ 2W J	C5023	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
R3313	QRL029J-223	OMF RESISTOR	22kΩ 2W J	C5024	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
R3314	QRL029J-223	OMF RESISTOR	22kΩ 2W J	C5025	QETN1CM-476Z	E CAPACITOR	47uF 16V M
R3315	QRL029J-223	OMF RESISTOR	22kΩ 2W J	C5026	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
R3325	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	C5027	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
R3326	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	C5028	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R3327	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	C5029	NDC31HJ-151X	C CAPACITOR	150pF 50V J
R3331	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	C5030	NDC31HJ-101X	C CAPACITOR	100pF 50V J
R3332	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	C5031	NDC31HJ-220X	C CAPACITOR	22pF 50V J
R3333	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	C5032	NDC31HJ-271X	C CAPACITOR	270pF 50V J
R3334	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	C5033	NDC31HJ-181X	C CAPACITOR	180pF 50V J
R3335	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J	C5034	NDC31HJ-330X	C CAPACITOR	33pF 50V J
R3351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	C5035	NDC31HJ-271X	C CAPACITOR	270pF 50V J
R3354	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	C5036	NDC31HJ-181X	C CAPACITOR	180pF 50V J
R3355	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	C5037	NDC31HJ-330X	C CAPACITOR	33pF 50V J
L3304	QQL244K-470Z	PEAKING COIL	47uH K	C5038	QETN1HM-106Z	E CAPACITOR	10uF 50V M
CN300A	WJA0029-002A-E	E-SI ID WIRE		C5039	QETN1HM-106Z	E CAPACITOR	10uF 50V M
CN300E	QJB003-074022-E	SIN ID C-B WIRE		C5040	QETN1HM-106Z	E CAPACITOR	10uF 50V M
CN30E2	QUB130-46A6AS-E	SIN TWIST WIRE		C5042	QETN1CM-476Z	E CAPACITOR	47uF 16V M
CN30E4	QUB130-46A6AS-E	SIN TWIST WIRE		C5043	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
K3104	QQR1114-001Z	FERRITE BEADS		C5601	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
K3105	QQR1114-001Z	FERRITE BEADS		C5602	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
△SK3001	QNZ0536-002	CRT SOCKET		R5001	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
				R5002	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
				R5003	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
				R5004	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
				R5005	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
				R5006	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
				R5008	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
				R5009	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
				R5010	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
				R5011	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
				R5012	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
				R5013	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
				R5014	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
				R5016	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
				R5017	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
				R5018	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
				R5019	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
				R5020	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
				R5021	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
				R5022	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J

AV SW P.W. BOARD ASS'Y (SGJ-5302A-M2)

△Ref No.	Part No.	Part Name	Description Local
IC5001	CXA2089Q-X	IC	
IC5002	M52055FP-X	IC	
Q5001	2SC3928A/QR/-X	TRANSISTOR	
Q5002	2SC3928A/QR/-X	TRANSISTOR	
Q5003	2SC3928A/QR/-X	TRANSISTOR	
Q5004	2SA1530A/QR/-X	TRANSISTOR	
Q5005	2SA1530A/QR/-X	TRANSISTOR	
Q5006	2SA1530A/QR/-X	TRANSISTOR	
Q5007	2SA1530A/QR/-X	TRANSISTOR	
Q5008	2SA1530A/QR/-X	TRANSISTOR	

△Ref No.	Part No.	Part Name	Description Local
R5024	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R5025	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R5026	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R5027	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R5028	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R5029	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R5030	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R5031	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R5032	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5033	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5034	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5035	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5036	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5037	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5038	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5039	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5040	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5041	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5042	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5043	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5044	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5045	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5046	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R5047	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5048	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5049	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5050	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5051	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R5052	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R5053	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R5054	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R5055	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R5056	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R5057	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R5058	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R5059	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R5060	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R5061	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J
R5062	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R5063	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J
R5064	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R5065	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J
R5066	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R5067	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R5068	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R5069	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R5070	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5071	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5072	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5073	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5074	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5075	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R5601	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5602	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5603	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R5604	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R5605	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R5606	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R5607	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5608	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R5609	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R5610	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R5612	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R5613	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
L5001	NQL092K-4R7X	COIL	4.7uH K
L5002	NQL013K-150X	P COIL	15uH K
L5003	NQL013K-150X	P COIL	15uH K
CN5002	QGB1505K1-35	CONNECTOR	B-B (1-35)
J5001	QNZ0454-001	AV JACK	INPUT-1(S/V/L/R)
J5002	QNN0349-002	PIN JACK	INPUT-2(COMPONENT)
J5003	QNN0348-001	PIN JACK	INPUT-2(L/R)
J5004	QNN0348-001	PIN JACK	AUDIO OUT
J5005	QNN0349-002	PIN JACK	INPUT-1(COMPONENT)

FRONT CONTROL P.W. BOARD ASS'Y (SGJ-6301A-M2)

△Ref No.	Part No.	Part Name	Description Local
C6401	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C6402	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C6403	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
R6401	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R6402	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J

△Ref No.	Part No.	Part Name	Description Local
R6403	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R6701	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R6702	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R6703	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R6704	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
CN600B	QJL001-051010-E	SIN CR C-C WIRE	
CN600G	QJB003-064426-E	SIN ID C-B WIRE	
CN600R	QJB003-054610-E	SIN ID C-B WIRE	
J6401	QNN0706-001	PIN JACK	INPUT-3(V)
J6402	QNN0706-002	PIN JACK	INPUT-3(L)
J6403	QNN0707-003	PIN JACK	INPUT-3(R)
LC6401	QQR1459-001	EMI F. COIL	
LC6402	QQR1459-001	EMI F. COIL	
LC6403	QQR1459-001	EMI F. COIL	
S6702	QSW0619-003Z	PUSH SWITCH	MENU
S6703	QSW0619-003Z	PUSH SWITCH	CH-
S6704	QSW0619-003Z	PUSH SWITCH	CH+
S6705	QSW0619-003Z	PUSH SWITCH	VOL-
S6706	QSW0619-003Z	PUSH SWITCH	VOL+

LED & POWER SW P.W. BOARD ASS'Y (SGJ-7301A-M2)

△Ref No.	Part No.	Part Name	Description Local
IC7701	GP1UM281QKVF	IR DETECT UNIT	
Q7701	RT1P241C-X	DIGI TRANSISTOR	
D7701	LG22440	LED	POWER
C7701	QETN1EM-476Z	E CAPACITOR	47uF 25V M
R7701	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R7702	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R7703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R7704	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
S7701	QSW0847-001	TACT SWITCH	POWER

USB P.W. BOARD ASS'Y (SGJ-8302A-M2)

△Ref No.	Part No.	Part Name	Description Local
IC8001	TPS2041BD-X	IC	
IC8501	QNZ0727-001	OPT CONNECTOR	
D8001	EDZC6.8B-X	Z DIODE	
D8002	EDZC6.8B-X	Z DIODE	
D8003	EDZC6.8B-X	Z DIODE	
D8004	EDZC6.8B-X	Z DIODE	
C8001	NDC31HJ-270X	C CAPACITOR	27pF 50V J
C8002	NDC31HJ-270X	C CAPACITOR	27pF 50V J
C8003	NDC31HJ-150X	C CAPACITOR	15pF 50V J
C8004	NDC31HJ-150X	C CAPACITOR	15pF 50V J
C8005	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C8006	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C8007	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M
C8501	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
R8001	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J
R8002	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J
R8501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J

CN80E5	QUB190-06FXZ5-E	SIN TWIST WIRE	
J8001	QNZ0851-001	USB CONNECTOR	

L/F P.W. BOARD ASS'Y (SGJ-9301A-M2)

△Ref No.	Part No.	Part Name	Description Local
△C901	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K
△C902	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K
△C903	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K
△C997	QCZ9079-102	C CAPACITOR	1000pF AC250V M
△R998	QRZ9041-275	C RESISTOR	2.7MΩ 1/2W K
R999	QRE121J-121Y	C RESISTOR	120Ω 1/2W J
△T951	QQT0355-001	POWER TRANSF	

△Ref No.	Part No.	Part Name	Description Local
△F901	QMF51N1-5R0-J5	FUSE	5A AC125V
△LF901	QQR0527-003	LINE FILTER	
△LF902	QQR0527-003	LINE FILTER	
△VA901	QAF0060-621	VARISTOR	620V

**ATSC TUNER MODULE P.W. BOARD ASS'Y
(SSD-2302A-M2)**

△Ref No.	Part No.	Part Name	Description Local
△MD001	SSD-2302A-M2	ATSC TUNER MODULE PWB	

PRINTED WIRING BOARD PARTS LIST [AV-32WF47/Y]

MAIN P.W. BOARD ASS'Y (SGJ-1303A-M2)

△Ref No.	Part No.	Part Name	Description Local
IC101	CXA2094Q-X	IC	
IC201	TM8812CSDNG6H60	IC(MCU)	
IC421	LA78041	IC	
IC601	NJW1143AV-W	IC	
IC641	NJM2150AM-X	IC	
IC651	LA42072NL	IC	
IC702	ATE08-32WF47Y	IC	(SERVICE)
IC703	S-80840CLNB-G-W	IC	
IC704	S78L05-T	IC	
IC851	PQ1CG2032FZ	IC	
IC852	S7809PI	IC	
IC853	PQ05RD21SSJH	IC	
IC855	PQ070XF01SZH	IC	
IC856	MP2263DN-C053-X	IC	
△IC911	STR-G9626-F3	IC	
△IC921	SE135N	IC	
Q001	2SK1374-X	MOS FET	
Q002	2SK1374-X	MOS FET	
Q003	2SK1374-X	MOS FET	
Q004	2SK1374-X	MOS FET	
Q005	RT1N440C-X	TRANSISTOR	
Q352	2SC3928A/QR/-X	TRANSISTOR	
Q501	2SC4212/Z1/	TRANSISTOR	
△Q511	TT2202-YD	POWER TRANST	
△Q531	2SC2785/JH/-T	TRANSISTOR	
Q532	2SA1530A/QR/-X	TRANSISTOR	
Q541	2SA1530A/QR/-X	TRANSISTOR	
Q542	2SA1530A/QR/-X	TRANSISTOR	
Q543	2SD1267A/QP/	POW TRANSISTOR	
Q671	RT1N441C-X	TRANSISTOR	
Q682	2SA1530A/QR/-X	TRANSISTOR	
Q683	RT1N441C-X	TRANSISTOR	
Q684	2SC3928A/QR/-X	TRANSISTOR	
Q701	2SA1530A/QR/-X	TRANSISTOR	
Q730	RT1N441C-X	TRANSISTOR	
Q951	2SD1383K/AB/-X	SI TRANSISTOR	
Q971	2SA1208/ST/Z1-T	TRANSISTOR	
D308	MTZJ4.7A-T2	Z DIODE	
D309	MTZJ4.7A-T2	Z DIODE	
D310	MTZJ4.7A-T2	Z DIODE	
D352	MTZJ9.1C-T2	Z DIODE	
D353	1SS133-T2	SI DIODE	
D354	MTZJ3.3A-T2	Z DIODE	
D421	1N4003SG-T2	SI DIODE	
D422	MTZJ75-T2	Z DIODE	
D501	RH3G-F1	SI DIODE	
D502	RU3AM-LFC4	SI DIODE	
D521	FR105GT-T3	SI DIODE	
D523	FR105GT-T3	SI DIODE	
D525	1SS81-T5	SI DIODE	
D526	1SS81-T5	SI DIODE	
D527	1SR124-400A-T2	SI DIODE	
D529	MTZJ9.1C-T2	Z DIODE	
△D531	MA4068NZ1/-T2	Z DIODE	
D535	1SS133-T2	SI DIODE	
D681	1SS133-T2	SI DIODE	
D682	1SS133-T2	SI DIODE	
D683	1SS133-T2	SI DIODE	
D684	1SS133-T2	SI DIODE	
D701	1SS133-T2	SI DIODE	
D705	1SS133-T2	SI DIODE	
D730	1SS133-T2	SI DIODE	
D851	EC31QS04-X	SB DIODE	
D852	1SS133-T2	SI DIODE	
D855	1SS133-T2	SI DIODE	
D856	EC30HA03L-X	SB DIODE	
D857	EC30HA03L-X	SB DIODE	
D861	PTZ3.9B-X	Z DIODE	
D862	PTZ3.9B-X	Z DIODE	
△D901	GSIB460	BRIDGE DIODE	
D910	MA700A-T2	SB DIODE	
D911	FR105GT-T3	SI DIODE	
D912	FR105GT-T3	SI DIODE	
D913	1SS133-T2	SI DIODE	
D914	1SS133-T2	SI DIODE	
D915	SARS01-T2	FR DIODE	
D917	MTZJ30A-T2	Z DIODE	
D918	MTZJ5.1C-T2	Z DIODE	
D920	1SS133-T2	SI DIODE	
D931	RU4AM-LFT2	SI DIODE	
D933	HER202G-FL	SI DIODE	
D935	HER202G-FL	SI DIODE	
D938	HER202G-FL	SI DIODE	

△Ref No.	Part No.	Part Name	Description Local
D941	MTZJ33A-T2	Z DIODE	
D945	MTZJ9.1B-T2	Z DIODE	
D952	1SS133-T2	SI DIODE	
D953	1SS133-T2	SI DIODE	
D954	1N4003SG-T2	SI DIODE	
D955	1N4003SG-T2	SI DIODE	
D956	1N4003SG-T2	SI DIODE	
D957	1N4003SG-T2	SI DIODE	
D972	MTZJ15C-T2	Z DIODE	
D973	1SS133-T2	SI DIODE	
C009	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C101	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C102	NCB31HK-562X	C CAPACITOR	5600pF 50V K
C103	NCB31EK-123X	C CAPACITOR	0.012uF 25V K
C104	NCB31CK-105X	C CAPACITOR	1uF 16V K
C105	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C106	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C107	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C108	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C109	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C110	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C111	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C112	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C113	NCB31HK-272X	C CAPACITOR	2700pF 50V K
C114	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C115	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M
C116	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C117	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C118	NCB31CK-105X	C CAPACITOR	1uF 16V K
C119	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C120	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C121	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C202	NCB21AK-105X	C CAPACITOR	1uF 10V K
C203	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C222	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C237	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C241	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C242	NCB21AK-225X	C CAPACITOR	2.2uF 10V K
C243	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M
C244	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C281	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J
C282	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C283	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C284	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C285	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C286	NCB21CK-474X	C CAPACITOR	0.47uF 16V K
C287	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C288	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C289	NCB21AK-105X	C CAPACITOR	1uF 10V K
C290	NCB21AK-105X	C CAPACITOR	1uF 10V K
C291	NCB21AK-105X	C CAPACITOR	1uF 10V K
C301	NCZ1064-225X	C CAPACITOR	2.2uF
C302	NCB31EK-104X	C CAPACITOR	0.1uF 25V K
C352	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C354	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C360	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C391	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C392	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C422	QFN32AK-102Z	M CAPACITOR	1000pF 100V K
C424	QETN1VM-107Z	E CAPACITOR	100uF 35V M
C425	QETN1VM-477Z	E CAPACITOR	470uF 35V M
C427	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C428	QETM1EM-228	E CAPACITOR	2200uF 25V M
C431	QFLC2AK-563Z	M CAPACITOR	0.056uF 100V K
C433	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C435	NCB31HK-183X	C CAPACITOR	0.018uF 50V K
C440	QCS32HJ-100Z	C CAPACITOR	10pF 500V J
C501	QCB32HK-151Z	C CAPACITOR	150pF 500V K
C502	QCB32HK-331Z	C CAPACITOR	330pF 500V K
C503	QEHR2CM-105Z	E CAPACITOR	1uF 160V M
C504	QEZ0203-107	E CAPACITOR	100uF 160V M
C507	QEZ0195-475Z	E CAPACITOR	4.7uF 50V M
△C510	QFZ0200-422	MPP CAPACITOR	4200pF 1.5kV H
△C513	QFZ0198-133	MPP CAPACITOR	0.013uF 1.5kV H
C514	QFP32JJ-183	PP CAPACITOR	0.018uF 630V J
C515	QFZ0197-474	MPP CAPACITOR	0.47uF 250V J
C516	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C521	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C523	QEHR1VM-108Z	E CAPACITOR	1000uF 35V M
C525	QETN1VM-107Z	E CAPACITOR	100uF 35V M
C526	QFV21HJ-824Z	MF CAPACITOR	0.82uF 50V J
C527	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J
C533	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C621	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C623	NCB31HK-102X	C CAPACITOR	1000pF 50V K

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C624	NCB31CK-334X	C CAPACITOR	0.33uF 16V K	C972	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C625	NCB31HK-822X	C CAPACITOR	8200pF 50V K	△C998	QCZ9074-103	C CAPACITOR	0.01uF AC250V M
C627	NCB31CK-105X	C CAPACITOR	1uF 16V K	△C999	QCZ9074-103	C CAPACITOR	0.01uF AC250V M
C628	NCB31CK-105X	C CAPACITOR	1uF 16V K				
C629	NCB31CK-105X	C CAPACITOR	1uF 16V K	R001	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C630	NCB31CK-105X	C CAPACITOR	1uF 16V K	R002	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C631	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R003	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C633	NCB31HK-102X	C CAPACITOR	1000pF 50V K	R004	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C634	NCB31CK-334X	C CAPACITOR	0.33uF 16V K	R005	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C635	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R006	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C636	QETN1HM-105Z	E CAPACITOR	1uF 50V M	R007	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C637	NCB31CK-105X	C CAPACITOR	1uF 16V K	R008	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C638	NCB31CK-105X	C CAPACITOR	1uF 16V K	R101	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C640	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	R102	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C641	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	R103	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
C642	NCB31HK-332X	C CAPACITOR	3300pF 50V K	R104	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C643	NCB31HK-332X	C CAPACITOR	3300pF 50V K	R105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C644	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	R106	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
C645	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	R107	NRSA63D-623X	MG RESISTOR	62kΩ 1/16W D
C646	QETN1HM-226Z	E CAPACITOR	22uF 50V M	R108	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
C647	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R109	NRSA63D-302X	MG RESISTOR	3kΩ 1/16W D
C648	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	R110	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
C649	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R201	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
C651	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R227	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C652	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R281	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
C653	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R282	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
C654	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R283	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
C655	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	R286	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C656	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R287	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C661	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R288	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J
C662	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R289	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J
C663	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R290	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J
C666	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R292	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
C671	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R293	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
C683	QETN1EM-107Z	E CAPACITOR	100uF 25V M	R294	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C684	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R295	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C701	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R296	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C702	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C703	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C704	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R303	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C705	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R304	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C706	NCB31HK-102X	C CAPACITOR	1000uF 50V K	R305	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C708	NDC31HJ-220X	C CAPACITOR	22pF 50V J	R306	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C709	NDC31HJ-220X	C CAPACITOR	22pF 50V J	R318	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C710	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R319	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
C711	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R354	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C712	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R355	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C728	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R356	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C730	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R359	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C807	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R421	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
C851	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R423	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
C852	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	R424	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
C853	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R426	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
C854	QETN1EM-107Z	E CAPACITOR	100uF 25V M	R427	QRT029J-1R2	MF RESISTOR	1.2Ω 2W J
C856	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R428	QRE121J-120Y	C RESISTOR	12Ω 1/2W J
C857	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	R429	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
C858	QE20256-128	E CAPACITOR	1200uF 10V M	R431	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
C861	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R432	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C865	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R433	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
C866	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R434	QRL029J-221	OMF RESISTOR	220Ω 2W J
C868	QETM1EM-228	E CAPACITOR	2200uF 25V M	R435	QRE121J-102Y	C RESISTOR	1kΩ 1/2W J
C869	QCZ0397-106Z	C CAPACITOR	10uF 25V M	R441	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C871	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C874	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	R502	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C876	QE20256-128	E CAPACITOR	1200uF 10V M	R503	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J
C880	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R504	QRL039J-152	OMF RESISTOR	1.5kΩ 3W J
△C905	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	R505	QRL039J-182	OMF RESISTOR	1.8kΩ 3W J
C907	QE20644-567	E CAPACITOR	560uF 200V K	R511	QRE121J-220Y	C RESISTOR	22Ω 1/2W J
△C908	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	R512	QRE121J-681Y	C RESISTOR	680Ω 1/2W J
C912	QCZ0340-222	C CAPACITOR	2200pF 2kV K	R516	QRZ0221-2R0	OMF RESISTOR	2Ω 7W K
C913	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	R524	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
C914	QETN1HM-107Z	E CAPACITOR	100uF 50V M	R526	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J
C916	NDC31HJ-331X	C CAPACITOR	330pF 50V J	R527	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
C917	NCB31HK-182X	C CAPACITOR	1800pF 50V K	R528	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
C918	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R529	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
C919	QFP32GJ-103	PP CAPACITOR	0.01uF 400V J	△R531	QRE121J-391Y	C RESISTOR	390Ω 1/2W J
C931	QE20203-227	E CAPACITOR	220uF 160V M	R532	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
C932	QETM1EM-228	E CAPACITOR	2200uF 25V M	R533	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C933	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	R534	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C934	NDC31HJ-221X	C CAPACITOR	220pF 50V J	△R535	NRVA02D-272X	CMF RESISTOR	2.7kΩ 1/10W D
C935	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	R536	QRE121J-470Y	C RESISTOR	47Ω 1/2W J
C937	QCZ0340-102	C CAPACITOR	1000pF 2kV K	R537	NRVA02D-752X	CMF RESISTOR	7.5kΩ 1/10W D
C938	QETN1EM-227Z	E CAPACITOR	220uF 25V M	R538	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
C939	QCB32HK-152Z	C CAPACITOR	1500pF 500V K	R543	QRE121J-122Y	C RESISTOR	1.2kΩ 1/2W J
C941	QCB32HK-102Z	C CAPACITOR	1000pF 500V K	R544	QRE121J-392Y	C RESISTOR	3.9kΩ 1/2W J
C942	QEHR1HM-105Z	E CAPACITOR	1uF 50V M	R545	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J
C943	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	R546	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
C951	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R547	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C952	QETN1CM-227Z	E CAPACITOR	220uF 16V M	R548	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J
C971	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R553	QRL039J-330	OMF RESISTOR	33Ω 3W J

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
△R554	QRK126J-220X	UNF C RESISTOR	22Ω 1/2W J	R950	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R555	QRT029J-2R2	MF RESISTOR	2.2Ω 2W J	R951	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R621	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R952	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R624	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R953	QRE121J-820Y	C RESISTOR	82Ω 1/2W J
R625	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R972	NRVA02D-102X	CMF RESISTOR	1kΩ 1/10W D
R631	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R973	NRVA02D-332X	CMF RESISTOR	3.3kΩ 1/10W D
R636	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R975	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J
R640	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R977	QRE121J-473Y	C RESISTOR	47kΩ 1/2W J
R641	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R978	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R642	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L001	QQL244K-6R8Z	PEAKING COIL	6.8uH K
R643	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L241	QQL244K-220Z	PEAKING COIL	22uH K
R644	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L391	QQL244K-220Z	PEAKING COIL	22uH K
R645	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L511	QQR1027-003	LINEARITY COIL	
R647	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	L512	QQLZ036-821	COIL	820uH K
R648	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	L521	QQLZ018-800	COIL	80uH
R649	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	L704	QQL244K-220Z	PEAKING COIL	22uH K
R651	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	L705	QQL244K-220Z	PEAKING COIL	22uH K
R652	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	L851	QQR1401-001	CHOKE COIL	
R653	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L853	QQL26AK-330Z	CHOKE COIL	33uH K
R654	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L854	QQL26AK-470Z	CHOKE COIL	47uH K
R661	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	L855	QQL26AK-100Z	CHOKE COIL	10uH K
R662	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	L860	QQL28AK-150	COIL	15uH K
R663	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L861	QQR1401-001	CHOKE COIL	
R664	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L931	QQL26AK-470Z	CHOKE COIL	47uH K
R672	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	L933	QQL26AK-470Z	CHOKE COIL	47uH K
R683	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	L937	QQL26AK-470Z	CHOKE COIL	47uH K
R685	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	L940	QQR0582-001Z	FERRITE BEADS	
R686	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	T501	QQR1414-001	DRIVE TRANSF	
R687	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	△T921	QQS0376-001	SW TRANSF	
R688	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	CN001	QGB1221J1-80	CONNECTOR	B-B (1-80)
R689	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	CN002	QGB1505J1-35	CONNECTOR	B-B (1-35)
R690	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	CN00F	QJB003-032213-E	SIN ID C-B WIRE	
R691	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	CN00W	WJK0200-004A-E	E-SI C WIRE C-B	
R701	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	△CP936	ICP-N70-T	IC PROTECTOR	2.5A
R702	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	△FR525	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K002	QQR0621-002Z	FERRITE BEADS	
R704	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K004	QQR0621-002Z	FERRITE BEADS	
R705	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K007	NQR0499-002X	FERRITE BEADS	
R706	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	K401	QQR0621-002Z	FERRITE BEADS	
R708	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K912	QQR0582-001Z	FERRITE BEADS	
R709	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K916	QQR0582-001Z	FERRITE BEADS	
R710	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K917	QQR0582-001Z	FERRITE BEADS	
R711	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	K918	QQR0582-001Z	FERRITE BEADS	
R716	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K920	QQR1139-001	FERRITE BEADS	
R718	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K931	QQR0582-001Z	FERRITE BEADS	
R729	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K932	QQR0582-001Z	FERRITE BEADS	
R731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K933	QQR0582-001Z	FERRITE BEADS	
R732	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K935	QQR0582-001Z	FERRITE BEADS	
R733	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K937	QQR0582-001Z	FERRITE BEADS	
R734	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	△PC921	PS2581AL1/QW/	PHOTO COUPLER	
R735	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	△RY951	QSK0085-001	RELAY	
R736	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	S421	QSW1142-001	LEVER SWITCH	V.CENTER
R738	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	△TH901	QAD0132-3R0	P THERMISTOR	3Ω
R739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	X701	QAX0767-001Z	CRYSTAL	8.000000MHZ
R740	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R746	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R769	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J				
R772	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R811	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R816	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J				
R821	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R827	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R852	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D				
R853	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D				
R854	NRSA63D-122X	MG RESISTOR	1.2kΩ 1/16W D				
R855	QRL029J-820	OMF RESISTOR	82Ω 2W J				
R858	QRT029J-R18	MF RESISTOR	0.18Ω 2W J				
R860	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J				
R861	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J				
R862	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D				
R863	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D				
R865	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R879	NRSA63D-222X	MG RESISTOR	2.2kΩ 1/16W D				
R880	NRSA63D-222X	MG RESISTOR	2.2kΩ 1/16W D				
R881	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J				
R901	QRF074K-1R2	UNF WW RESISTOR	1.2Ω 7W K				
R909	QRG01GJ-470	OMF RESISTOR	47Ω 1W J				
R911	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J				
R912	QRT029J-R18	MF RESISTOR	0.18Ω 2W J				
R913	QRT029J-R15	MF RESISTOR	0.15Ω 2W J				
△R914	QRK126J-681X	UNF C RESISTOR	68Ω 1/2W J				
R915	QRK129J-6R8	UNF C RESISTOR	6.8Ω 1/2W J				
△R917	QRK126J-332X	UNF C RESISTOR	3.3kΩ 1/2W J				
R918	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J				
R919	QRE121J-684Y	C RESISTOR	680kΩ 1/2W J				
R924	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J				
R930	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J				
R940	QRE121J-181Y	C RESISTOR	18Ω 1/2W J				
R941	QRL029J-183	OMF RESISTOR	18kΩ 2W J				
R942	QRT039J-R68	MF RESISTOR	0.68Ω 3W J				

CRT SOCKET P.W. BOARD ASS'Y (SGJ-3301A-M2)

△Ref No.	Part No.	Part Name	Description Local
Q3103	2SC3928A/QR/-X	TRANSISTOR	
Q3107	2SA2005/DE/	POW TRANSISTOR	
Q3108	2SC5511/DE/	POW TRANSISTOR	
Q3109	2SC3928A/QR/-X	TRANSISTOR	
Q3304	2SC4544-LB	POW TRANSISTOR	
Q3305	2SC4544-LB	POW TRANSISTOR	
Q3306	2SC4544-LB	POW TRANSISTOR	
Q3351	2SA1530A/QR/-X	TRANSISTOR	
D3105	RH1S-T3	SI DIODE	
D3106	RH1S-T3	SI DIODE	
D3331	1SS133-T2	SI DIODE	
D3351	1SS133-T2	SI DIODE	
D3352	1SS133-T2	SI DIODE	
D3353	1SS133-T2	SI DIODE	
D3354	1SS133-T2	SI DIODE	
C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C3113	QETN2CM-106Z	E CAPACITOR	10uF 160V M
C3114	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
C3115	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
C3117	QETN2CM-106Z	E CAPACITOR	10uF 160V M
C3118	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M
C3119	QETN1AM-107Z	E CAPACITOR	100uF 10V M
C3120	QETN1AM-337Z	E CAPACITOR	330uF 10V M

△Ref No.	Part No.	Part Name	Description Local
C3121	QCS32HJ-151Z	C CAPACITOR	150pF 500V J
C3127	NDC31HJ-471X	C CAPACITOR	470pF 50V J
C3301	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C3302	NDC31HJ-391X	C CAPACITOR	390pF 50V J
C3303	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C3323	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C3331	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3332	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3333	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3351	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C3363	QCZ0121-102	C CAPACITOR	1000pF 3KV Z
R3115	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3116	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3122	QRT029J-R15	MF RESISTOR	0.15Ω 2W J
R3123	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3124	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J
R3125	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3126	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R3127	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R3128	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3129	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3130	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J
R3131	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R3132	QRL029J-391	OMF RESISTOR	390Ω 2W J
R3134	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3136	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R3139	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R3142	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R3143	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3144	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3145	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3146	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3148	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3301	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3302	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3303	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3304	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3305	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3306	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3307	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3308	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3309	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3310	QRL029J-183	OMF RESISTOR	18kΩ 2W J
R3311	QRL029J-183	OMF RESISTOR	18kΩ 2W J
R3312	QRL029J-183	OMF RESISTOR	18kΩ 2W J
R3313	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R3314	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R3315	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R3325	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K
R3326	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K
R3327	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K
R3331	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3332	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3333	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3334	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R3335	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R3351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3354	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R3355	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
L3304	QQL244K-470Z	PEAKING COIL	47uH K
CN300A	WJA0029-002A-E	E-SI ID WIRE	
CN300E	QJB003-074022-E	SIN ID C-B WIRE	
CN30E2	QUB130-46A6AS-E	SIN TWIST WIRE	
CN30E4	QUB130-46A6AS-E	SIN TWIST WIRE	
K3104	QQR1114-001Z	FERRITE BEADS	
K3105	QQR1114-001Z	FERRITE BEADS	
△SK3001	QNZ0536-002	CRT SOCKET	

USB P.W. BOARD ASS'Y (SGJ-8302A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

L/F P.W. BOARD ASS'Y (SGJ-9301A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

ATSC TUNER MODULE P.W. BOARD ASS'Y (SSD-2302A-M2)

REFER TO PARTS LIST IN PAGE 3-11 FOR THIS P.W. BOARD.

AV SW P.W. BOARD ASS'Y (SGJ-5302A-M2)

REFER TO PARTS LIST IN PAGE 3-9 FOR THIS P.W. BOARD.

FRONT CONTROL P.W. BOARD ASS'Y (SGJ-6301A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

LED & POWER SW P.W. BOARD ASS'Y (SGJ-7301A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

PRINTED WIRING BOARD PARTS LIST [AV-32WF47/z]

MAIN P.W. BOARD ASS'Y (SGJ-1304A-M2)

△Ref No.	Part No.	Part Name	Description Local
IC101	CXA2094Q-X	IC	
IC201	TM8812CSDNG6H60	IC(MCU)	
IC421	LA78041	IC	
IC601	NJW1143AV-W	IC	
IC641	NJM2150AM-X	IC	
IC651	LA42072NL	IC	
IC702	ATE08-32WF47Z	IC	(SERVICE)
IC703	S-80840CLNB-G-W	IC	
IC704	S78L05-T	IC	
IC851	PQ1CG2032FZ	IC	
IC852	S7809PI	IC	
IC853	PQ05RD21SSJH	IC	
IC855	PQ070XF01SZH	IC	
IC856	MP2263DN-C053-X	IC	
△IC911	STR-G9626-F3	IC	
△IC921	SE135N	IC	
Q001	2SK1374-X	MOS FET	
Q002	2SK1374-X	MOS FET	
Q003	2SK1374-X	MOS FET	
Q004	2SK1374-X	MOS FET	
Q005	RT1N440C-X	TRANSISTOR	
Q352	2SC3928A/QR/-X	TRANSISTOR	
Q501	2SC4212/Z1/	TRANSISTOR	
△Q511	TT2202-YD	POWER TRANST	
△Q531	2SC2785/JH/-T	TRANSISTOR	
Q532	2SA1530A/QR/-X	TRANSISTOR	
Q541	2SA1530A/QR/-X	TRANSISTOR	
Q542	2SA1530A/QR/-X	TRANSISTOR	
Q543	2SD1267A/QP/	POW TRANSISTOR	
Q671	RT1N441C-X	TRANSISTOR	
Q682	2SA1530A/QR/-X	TRANSISTOR	
Q683	RT1N441C-X	TRANSISTOR	
Q684	2SC3928A/QR/-X	TRANSISTOR	
Q701	2SA1530A/QR/-X	TRANSISTOR	
Q730	RT1N441C-X	TRANSISTOR	
Q951	2SD1383K/AB/-X	SI TRANSISTOR	
Q971	2SA1208/ST/Z1-T	TRANSISTOR	
D308	MTZJ4.7A-T2	Z DIODE	
D309	MTZJ4.7A-T2	Z DIODE	
D310	MTZJ4.7A-T2	Z DIODE	
D352	MTZJ9.1C-T2	Z DIODE	
D353	1SS133-T2	SI DIODE	
D354	MTZJ3.3A-T2	Z DIODE	
D421	1N4003SG-T2	SI DIODE	
D422	MTZJ75-T2	Z DIODE	
D501	RH3G-F1	SI DIODE	
D502	RU3AM-LFC4	SI DIODE	
D521	FR105GT-T3	SI DIODE	
D523	FR105GT-T3	SI DIODE	
D525	1SS81-T5	SI DIODE	
D526	1SS81-T5	SI DIODE	
D527	1SR124-400A-T2	SI DIODE	
D529	MTZJ9.1C-T2	Z DIODE	
△D531	MA4068NZ1/-T2	Z DIODE	
D535	1SS133-T2	SI DIODE	
D681	1SS133-T2	SI DIODE	
D682	1SS133-T2	SI DIODE	
D683	1SS133-T2	SI DIODE	
D684	1SS133-T2	SI DIODE	
D701	1SS133-T2	SI DIODE	
D705	1SS133-T2	SI DIODE	
D730	1SS133-T2	SI DIODE	
D851	EC31QS04-X	SB DIODE	
D852	1SS133-T2	SI DIODE	
D855	1SS133-T2	SI DIODE	
D856	EC30HA03L-X	SB DIODE	
D857	EC30HA03L-X	SB DIODE	
D861	PTZ3.9B-X	Z DIODE	
D862	PTZ3.9B-X	Z DIODE	
△D901	GSIB460	BRIDGE DIODE	
D910	MA700A-T2	SB DIODE	
D911	FR105GT-T3	SI DIODE	
D912	FR105GT-T3	SI DIODE	
D913	1SS133-T2	SI DIODE	
D914	1SS133-T2	SI DIODE	
D915	SARS01-T2	FR DIODE	
D917	MTZJ30A-T2	Z DIODE	
D918	MTZJ5.1C-T2	Z DIODE	
D920	1SS133-T2	SI DIODE	
D931	RU4AM-LFT2	SI DIODE	
D933	HER202G-FL	SI DIODE	
D935	HER202G-FL	SI DIODE	
D938	HER202G-FL	SI DIODE	

△Ref No.	Part No.	Part Name	Description Local
D941	MTZJ33A-T2	Z DIODE	
D945	MTZJ9.1B-T2	Z DIODE	
D952	1SS133-T2	SI DIODE	
D953	1SS133-T2	SI DIODE	
D954	1N4003SG-T2	SI DIODE	
D955	1N4003SG-T2	SI DIODE	
D956	1N4003SG-T2	SI DIODE	
D957	1N4003SG-T2	SI DIODE	
D972	MTZJ15C-T2	Z DIODE	
D973	1SS133-T2	SI DIODE	
C009	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C101	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C102	NCB31HK-562X	C CAPACITOR	5600pF 50V K
C103	NCB31EK-123X	C CAPACITOR	0.012uF 25V K
C104	NCB31CK-105X	C CAPACITOR	1uF 16V K
C105	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C106	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C107	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C108	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C109	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C110	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C111	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C112	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C113	NCB31HK-272X	C CAPACITOR	2700pF 50V K
C114	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C115	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M
C116	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M
C117	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C118	NCB31CK-105X	C CAPACITOR	1uF 16V K
C119	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C120	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C121	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C202	NCB21AK-105X	C CAPACITOR	1uF 10V K
C203	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C222	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C237	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C241	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C242	NCB21AK-225X	C CAPACITOR	2.2uF 10V K
C243	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M
C244	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C281	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J
C282	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C283	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C284	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C285	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C286	NCB21CK-474X	C CAPACITOR	0.47uF 16V K
C287	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C288	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C289	NCB21AK-105X	C CAPACITOR	1uF 10V K
C290	NCB21AK-105X	C CAPACITOR	1uF 10V K
C291	NCB21AK-105X	C CAPACITOR	1uF 10V K
C301	NCZ1064-225X	C CAPACITOR	2.2uF
C302	NCB31EK-104X	C CAPACITOR	0.1uF 25V K
C352	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C354	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C360	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C391	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C392	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C422	QFN32AK-102Z	M CAPACITOR	1000pF 100V K
C424	QETN1VM-107Z	E CAPACITOR	100uF 35V M
C425	QETN1VM-477Z	E CAPACITOR	470uF 35V M
C427	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C428	QETM1EM-228	E CAPACITOR	2200uF 25V M
C431	QFLC2AK-563Z	M CAPACITOR	0.056uF 100V K
C433	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C435	NCB31HK-183X	C CAPACITOR	0.018uF 50V K
C440	QCS32HJ-100Z	C CAPACITOR	10pF 500V J
C501	QCB32HK-151Z	C CAPACITOR	150pF 500V K
C502	QCB32HK-331Z	C CAPACITOR	330pF 500V K
C503	QEHR2CM-105Z	E CAPACITOR	1uF 160V M
C504	QEZ0203-107	E CAPACITOR	100uF 160V M
C507	QEZO195-475Z	E CAPACITOR	4.7uF 50V M
△C510	QFZO200-382	MPP CAPACITOR	3800pF 1.5kV H
△C513	QFZO196-103	MPP CAPACITOR	0.01uF 1.5kV H
C514	QFP32JJ-183	PP CAPACITOR	0.018uF 630V J
C515	QFZO197-404	MPP CAPACITOR	0.4uF 250V J
C516	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C521	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C523	QEHR1VM-108Z	E CAPACITOR	1000uF 35V M
C525	QETN1VM-107Z	E CAPACITOR	100uF 35V M
C526	QFV21HJ-824Z	MF CAPACITOR	0.82uF 50V J
C527	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J
C533	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C621	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C623	NCB31HK-102X	C CAPACITOR	1000pF 50V K

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C624	NCB31CK-334X	C CAPACITOR	0.33uF 16V K	C972	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C625	NCB31HK-822X	C CAPACITOR	8200pF 50V K	△C998	QCZ9074-103	C CAPACITOR	0.01uF AC250V M
C627	NCB31CK-105X	C CAPACITOR	1uF 16V K	△C999	QCZ9074-103	C CAPACITOR	0.01uF AC250V M
C628	NCB31CK-105X	C CAPACITOR	1uF 16V K				
C629	NCB31CK-105X	C CAPACITOR	1uF 16V K	R001	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C630	NCB31CK-105X	C CAPACITOR	1uF 16V K	R002	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C631	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R003	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C633	NCB31HK-102X	C CAPACITOR	1000pF 50V K	R004	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C634	NCB31CK-334X	C CAPACITOR	0.33uF 16V K	R005	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C635	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R006	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C636	QETN1HM-105Z	E CAPACITOR	1uF 50V M	R007	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C637	NCB31CK-105X	C CAPACITOR	1uF 16V K	R008	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C638	NCB31CK-105X	C CAPACITOR	1uF 16V K	R101	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C640	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	R102	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C641	QENC1EM-475Z	BP E CAPACITOR	4.7uF 25V M	R103	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
C642	NCB31HK-332X	C CAPACITOR	3300pF 50V K	R104	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C643	NCB31HK-332X	C CAPACITOR	3300pF 50V K	R105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C644	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	R106	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
C645	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	R107	NRSA63D-623X	MG RESISTOR	62kΩ 1/16W D
C646	QETN1HM-226Z	E CAPACITOR	22uF 50V M	R108	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
C647	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R109	NRSA63D-302X	MG RESISTOR	3kΩ 1/16W D
C648	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	R110	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
C649	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R201	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
C651	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R227	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C652	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R181	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
C653	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R282	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
C654	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R283	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
C655	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	R286	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C656	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R287	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C661	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R288	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J
C662	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	R289	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J
C663	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R290	NRSA02J-561X	MG RESISTOR	560Ω 1/10W J
C666	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R292	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
C671	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R293	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
C683	QETN1EM-107Z	E CAPACITOR	100uF 25V M	R294	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C684	QETN1CM-476Z	E CAPACITOR	47uF 16V M	R295	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C701	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R296	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C702	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C703	QETN1HM-106Z	E CAPACITOR	10uF 50V M	R302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C704	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R303	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
C705	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R304	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C706	NCB31HK-102X	C CAPACITOR	1000uF 50V K	R305	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C708	NDC31HJ-220X	C CAPACITOR	22pF 50V J	R306	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C709	NDC31HJ-220X	C CAPACITOR	22pF 50V J	R318	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
C710	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R319	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
C711	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R354	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C712	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R355	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C728	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R356	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C730	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R359	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C807	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	R421	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
C851	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R423	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
C852	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	R424	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
C853	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R426	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
C854	QETN1EM-107Z	E CAPACITOR	100uF 25V M	R427	QRT029J-1R2	MF RESISTOR	1.2Ω 2W J
C856	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R428	QRE121J-120Y	C RESISTOR	12Ω 1/2W J
C857	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	R429	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
C858	QEZO256-128	E CAPACITOR	1200uF 10V M	R431	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
C861	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R432	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C865	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R433	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
C866	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	R434	QRL029J-221	OMF RESISTOR	220Ω 2W J
C868	QETM1EM-228	E CAPACITOR	2200uF 25V M	R435	QRE121J-821Y	C RESISTOR	820Ω 1/2W J
C869	QCZ0397-106Z	C CAPACITOR	10uF 25V M	R441	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C871	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C874	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	R502	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
C876	QEZO256-128	E CAPACITOR	1200uF 10V M	R503	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J
C880	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	R504	QRL039J-152	OMF RESISTOR	1.5kΩ 3W J
△C905	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	R505	QRL039J-182	OMF RESISTOR	1.8kΩ 3W J
C907	QEZO644-567	E CAPACITOR	560uF 200V K	R511	QRE121J-220Y	C RESISTOR	22Ω 1/2W J
△C908	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	R512	QRE121J-681Y	C RESISTOR	680Ω 1/2W J
C912	QCZ0340-222	C CAPACITOR	2200pF 2kV K	R516	QRZO221-2R0	OMF RESISTOR	2Ω 7W K
C913	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	R524	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
C914	QETN1HM-107Z	E CAPACITOR	100uF 50V M	R526	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J
C916	NDC31HJ-331X	C CAPACITOR	330pF 50V J	R527	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
C917	NCB31HK-182X	C CAPACITOR	1800pF 50V K	R528	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
C918	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	R529	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
C919	QFP32GJ-103	PP CAPACITOR	0.01uF 400V J	△R531	QRE121J-391Y	C RESISTOR	390Ω 1/2W J
C931	QEZO203-227	E CAPACITOR	220uF 160V M	R532	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
C932	QETM1EM-228	E CAPACITOR	2200uF 25V M	R533	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C933	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	R534	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
C934	NDC31HJ-221X	C CAPACITOR	220pF 50V J	△R535	NRVA02D-242X	CMF RESISTOR	2.4kΩ 1/10W D
C935	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	R536	QRE121J-470Y	C RESISTOR	47Ω 1/2W J
C937	QCZ0340-102	C CAPACITOR	1000pF 2kV K	R537	NRVA02D-752X	CMF RESISTOR	7.5kΩ 1/10W D
C938	QETN1EM-227Z	E CAPACITOR	220uF 25V M	R538	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
C939	QCB32HK-152Z	C CAPACITOR	1500pF 500V K	R543	QRE121J-122Y	C RESISTOR	1.2kΩ 1/2W J
C941	QCB32HK-102Z	C CAPACITOR	1000pF 500V K	R544	QRE121J-392Y	C RESISTOR	3.9kΩ 1/2W J
C942	QEHR1HM-105Z	E CAPACITOR	1uF 50V M	R545	QRE121J-153Y	C RESISTOR	15kΩ 1/2W J
C943	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	R546	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
C951	QETN1EM-477Z	E CAPACITOR	470uF 25V M	R547	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
C952	QETN1CM-227Z	E CAPACITOR	220uF 16V M	R548	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J
C971	QETN1CM-107Z	E CAPACITOR	100uF 16V M	R553	QRL039J-330	OMF RESISTOR	33Ω 3W J

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
△R554	QRK126J-220X	UNF C RESISTOR	22Ω 1/2W J	R950	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R555	QRT029J-2R2	MF RESISTOR	2.2Ω 2W J	R951	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R621	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R952	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R624	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R953	QRE121J-820Y	C RESISTOR	82Ω 1/2W J
R625	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R972	NRVA02D-102X	CMF RESISTOR	1kΩ 1/10W D
R631	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	R973	NRVA02D-332X	CMF RESISTOR	3.3kΩ 1/10W D
R636	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	R975	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J
R640	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R977	QRE121J-473Y	C RESISTOR	47kΩ 1/2W J
R641	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	R978	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R642	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L001	QQL244K-6R8Z	PEAKING COIL	6.8uH K
R643	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L241	QQL244K-220Z	PEAKING COIL	22uH K
R644	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L391	QQL244K-220Z	PEAKING COIL	22uH K
R645	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	L511	QQR1165-001	LINEARITY COIL	
R647	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	L512	QQLZ036-821	COIL	820uH K
R648	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	L521	QQLZ026-860	COIL	86uH
R649	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	L704	QQL244K-220Z	PEAKING COIL	22uH K
R651	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	L705	QQL244K-220Z	PEAKING COIL	22uH K
R652	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	L851	QQR1401-001	CHOKE COIL	
R653	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L853	QQL26AK-330Z	CHOKE COIL	33uH K
R654	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L854	QQL26AK-470Z	CHOKE COIL	47uH K
R661	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	L855	QQL26AK-100Z	CHOKE COIL	10uH K
R662	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	L860	QQL28AK-150	COIL	15uH K
R663	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L861	QQR1401-001	CHOKE COIL	
R664	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	L931	QQL26AK-470Z	CHOKE COIL	47uH K
R672	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	L933	QQL26AK-470Z	CHOKE COIL	47uH K
R683	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	L937	QQL26AK-470Z	CHOKE COIL	47uH K
R685	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	L940	QQR0582-001Z	FERRITE BEADS	
R686	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	T501	QQR1414-001	DRIVE TRANSF	
R687	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	△T921	QQS0376-001	SW TRANSF	
R688	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	CN001	QGB1221J1-80	CONNECTOR	B-B (1-80)
R689	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	CN002	QGB1505J1-35	CONNECTOR	B-B (1-35)
R690	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	CN00F	QJB003-032213-E	SIN ID C-B WIRE	
R691	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	CN00W	WJK0200-004A-E	E-SI C WIRE C-B	
R701	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	△CP936	ICP-N70-T	IC PROTECTOR	2.5A
R702	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	△FR525	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K002	QQR0621-002Z	FERRITE BEADS	
R704	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K004	QQR0621-002Z	FERRITE BEADS	
R705	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K007	NQR0499-002X	FERRITE BEADS	
R706	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	K401	QQR0621-002Z	FERRITE BEADS	
R708	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K912	QQR0582-001Z	FERRITE BEADS	
R709	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K916	QQR0582-001Z	FERRITE BEADS	
R710	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K917	QQR0582-001Z	FERRITE BEADS	
R711	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	K918	QQR0582-001Z	FERRITE BEADS	
R716	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K920	QQR1139-001	FERRITE BEADS	
R718	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K931	QQR0582-001Z	FERRITE BEADS	
R729	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K932	QQR0582-001Z	FERRITE BEADS	
R731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K933	QQR0582-001Z	FERRITE BEADS	
R732	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	K935	QQR0582-001Z	FERRITE BEADS	
R733	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	K937	QQR0582-001Z	FERRITE BEADS	
R734	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	△PC921	PS2581AL1/QW/	PHOTO COUPLER	
R735	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	△RY951	QSK0085-001	RELAY	
R736	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	S421	QSW1142-001	LEVER SWITCH	V.CENTER
R738	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	△TH901	QAD0132-3R0	P THERMISTOR	3Ω
R739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	X701	QAX0767-001Z	CRYSTAL	8.000000MHZ
R740	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R746	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R769	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J				
R772	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R811	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R816	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J				
R821	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R827	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J				
R852	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D				
R853	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D				
R854	NRSA63D-122X	MG RESISTOR	1.2kΩ 1/16W D				
R855	QRL029J-820	OMF RESISTOR	82Ω 2W J				
R858	QRT029J-R18	MF RESISTOR	0.18Ω 2W J				
R860	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J				
R861	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J				
R862	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D				
R863	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D				
R865	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J				
R879	NRSA63D-222X	MG RESISTOR	2.2kΩ 1/16W D				
R880	NRSA63D-222X	MG RESISTOR	2.2kΩ 1/16W D				
R881	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J				
R901	QRF074K-1R2	UNF WW RESISTOR	1.2Ω 7W K				
R909	QRG01GJ-470	OMF RESISTOR	47Ω 1W J				
R911	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J				
R912	QRT029J-R18	MF RESISTOR	0.18Ω 2W J				
R913	QRT029J-R15	MF RESISTOR	0.15Ω 2W J				
△R914	QRK126J-681X	UNF C RESISTOR	68Ω 1/2W J				
R915	QRK129J-6R8	UNF C RESISTOR	6.8Ω 1/2W J				
△R917	QRK126J-332X	UNF C RESISTOR	3.3kΩ 1/2W J				
R918	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J				
R919	QRE121J-684Y	C RESISTOR	680kΩ 1/2W J				
R924	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J				
R930	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J				
R940	QRE121J-181Y	C RESISTOR	18Ω 1/2W J				
R941	QRL029J-183	OMF RESISTOR	18kΩ 2W J				
R942	QRT039J-R68	MF RESISTOR	0.68Ω 3W J				

CRT SOCKET P.W. BOARD ASS'Y (SGJ-3303A-M2)

△Ref No.	Part No.	Part Name	Description Local
Q3103	2SC3928A/QR/-X	TRANSISTOR	
Q3107	2SA2005/DE/-	POW TRANSISTOR	
Q3108	2SC5511/DE/-	POW TRANSISTOR	
Q3109	2SC3928A/QR/-X	TRANSISTOR	
Q3304	2SC4544-LB	POW TRANSISTOR	
Q3305	2SC4544-LB	POW TRANSISTOR	
Q3306	2SC4544-LB	POW TRANSISTOR	
Q3351	2SA1530A/QR/-X	TRANSISTOR	
D3105	RH1S-T3	SI DIODE	
D3106	RH1S-T3	SI DIODE	
D3331	1SS133-T2	SI DIODE	
D3351	1SS133-T2	SI DIODE	
D3352	1SS133-T2	SI DIODE	
D3353	1SS133-T2	SI DIODE	
D3354	1SS133-T2	SI DIODE	
C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C3113	QETN2CM-106Z	E CAPACITOR	10uF 160V M
C3114	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
C3115	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
C3117	QETN2CM-106Z	E CAPACITOR	10uF 160V M
C3118	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M
C3119	QETN1AM-107Z	E CAPACITOR	100uF 10V M
C3120	QETN1AM-337Z	E CAPACITOR	330uF 10V M

△Ref No.	Part No.	Part Name	Description Local
C3121	QCS32HJ-151Z	C CAPACITOR	150pF 500V J
C3127	NDC31HJ-471X	C CAPACITOR	470pF 50V J
C3301	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C3302	NDC31HJ-391X	C CAPACITOR	390pF 50V J
C3303	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C3323	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C3331	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3332	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3333	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3351	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C3363	QCZ0121-102	C CAPACITOR	1000pF 3KV Z
R3115	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3116	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3122	QRT029J-R15	MF RESISTOR	0.15Ω 2W J
R3123	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3124	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J
R3125	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3126	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R3127	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R3128	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3129	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3130	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J
R3131	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R3132	QRL029J-391	OMF RESISTOR	390Ω 2W J
R3134	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3136	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R3139	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R3142	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R3143	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3144	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3145	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3146	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R3148	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3301	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3302	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3303	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3304	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3305	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3306	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3307	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3308	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3309	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3310	QRL029J-183	OMF RESISTOR	18kΩ 2W J
R3311	QRL029J-183	OMF RESISTOR	18kΩ 2W J
R3312	QRL029J-183	OMF RESISTOR	18kΩ 2W J
R3313	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R3314	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R3315	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R3325	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K
R3326	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K
R3327	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K
R3331	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3332	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3333	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3334	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R3335	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R3351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R3354	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R3355	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
L3304	QQL244K-470Z	PEAKING COIL	47uH K
CN300A	WJA0029-002A-E	E-SI ID WIRE	
CN300E	QJB003-074022-E	SIN ID C-B WIRE	
CN30E2	QUB130-46A6AS-E	SIN TWIST WIRE	
CN30E4	QUB130-46A6AS-E	SIN TWIST WIRE	
K3104	QQR1114-001Z	FERRITE BEADS	
K3105	QQR1114-001Z	FERRITE BEADS	
△SK3001	QNZ0536-002	CRT SOCKET	

USB P.W. BOARD ASS'Y (SGJ-8302A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

L/F P.W. BOARD ASS'Y (SGJ-9301A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

ATSC TUNER MODULE P.W. BOARD ASS'Y (SSD-2302A-M2)

REFER TO PARTS LIST IN PAGE 3-11 FOR THIS P.W. BOARD.

AV SW P.W. BOARD ASS'Y (SGJ-5302A-M2)

REFER TO PARTS LIST IN PAGE 3-9 FOR THIS P.W. BOARD.

FRONT CONTROL P.W. BOARD ASS'Y (SGJ-6301A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

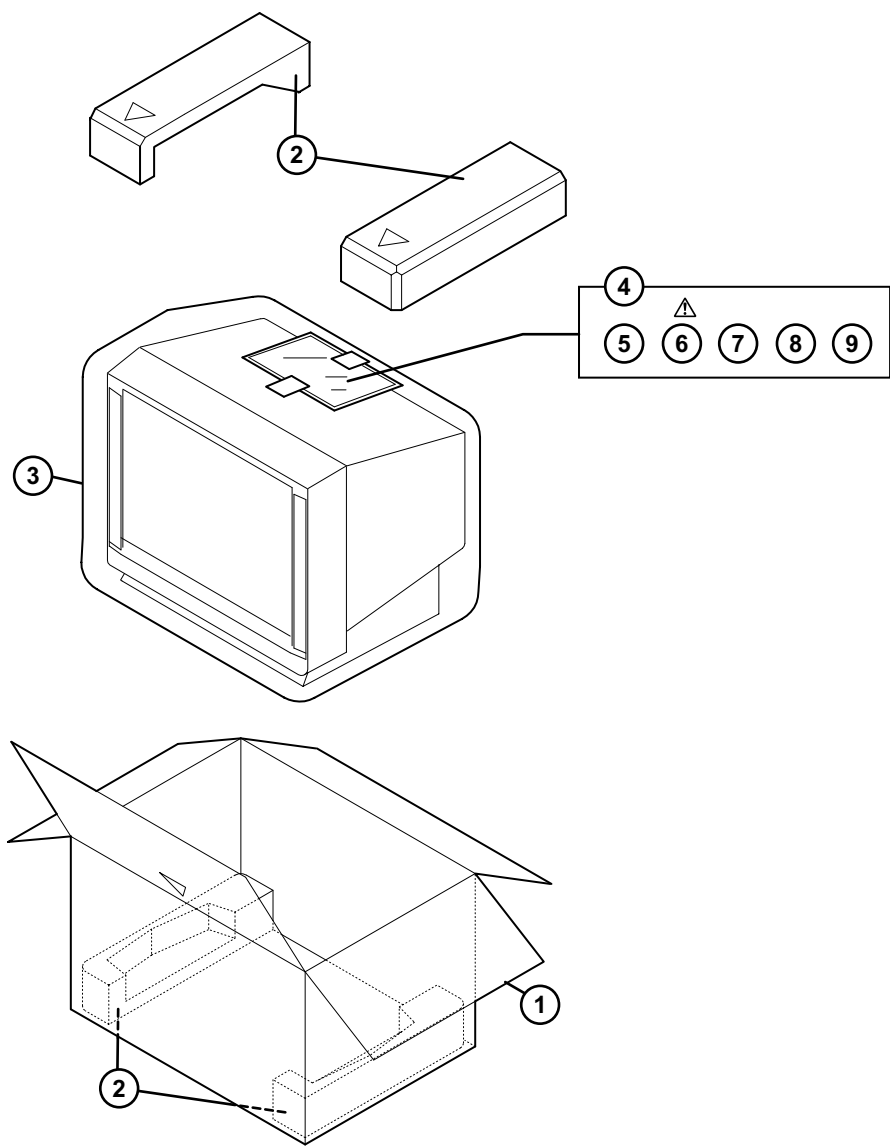
LED & POWER SW P.W. BOARD ASS'Y (SGJ-7301A-M2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

REMOTE CONTROL UNIT PARTS LIST (RM-C1290G-1C)

<div><div>⚠</div></div> Ref.No.	Part No.	Part Name	Description	Local
	10030-0006800	BATTERY COVER		

PACKING



PACKING PARTS LIST

<div><div>⚠</div></div> Ref.No.	Part No.	Part Name	Description	Local
1	LC10181-026C-A	PACKING CASE		
2	LC11049-002B-A	CUSHION ASSY	4pcs in 1set	
3	GQ30092-003A-A	LAMINATE FILM BAG		
4	QPA02503505	POLY BAG	25cm x 35cm	
5	RM-C1290G-1C	REMOTE CONTROL UNIT		
<div><div>⚠</div></div> 6	LCT2033-001B-A	INST BOOK	English	
7	-----	BATTERY	R6P/AA(x2)	
8	BT-51034-2Q	REGIST. CARD		
9	-----	WARRANTY CARD	BT-52006-2Q	